GENDER AND WORK IN THE MAQUILADORAS OF CIUDAD JUAREZ, MEXICO.

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ABSTRACT

The establishment of the Border Industrialization Program (BIP) between Mexico and the United States in 1965 led to the creation of free-trade zone assembly factories- or maquiladoras - along Mexico's Northern border and in the interior. Thousands of Mexican women have since entered the industrial export sector as maquiladora workers, and make up the majority of unskilled and semi-skilled assemblers in electronic and apparel maquila plants. This paper argues that maquiladora managers' preference for women is the result of an unquestioning belief in the gender-specific traits of women - such as dexterity, docility, patience- and well-calculated hiring and personnel policies, which have been designed not only to take advantage of the patriarchal system in Mexico and women's weaker social, political and economic position, but to maintain and control women's qualities of "cheapness", "docility", and "productivity", to the advantage of business.

RÉSUMÉ

La création du Programme d'industrialisation frontalier entre le Mexique et les États-Unis en 1965 a donné lieu à l'implantation d'usines de montage ou maquiladoras dans la zone de libre-échange - le long de la frontière nord du Mexique et à l'intérieur. Des milliers de femmes mexicaines sont depuis lors entrées dans le secteur des exportations industrielles comme ouvrières de maquiladoras et elles forment la majorité des manoeuvres et des ouvriers semi- qualifiés qui travaillent dans les usines d'électronique et de vêtements. L'auteur de cet article soutient que la préférence des cadres de maquiladoras pour les femmes est le résultat de leur croyance aveugle pour les caractéristiques proprement féminines, comme la dextérité, la docilité, la patience - et de politiques de recrutement et de personnel bien calculées, conçues non seulement pour profiter du système patriarcal du Mexique et de la faiblesse de la situation sociale, politique et économique des femmes, mais également pour maintenir et contrôler les qualités de main-d'oeuvre "bon marché", "docile" et "productive" des femmes qui servent les intérêts du milieu industriel.

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Introduction

Since the 1960's, a new international division of labour (NIDL) has begun to replace the "classical" system which has dominated industrial development for the past 500 years. Whereas in the past, raw materials were produced in underdeveloped countries and transported to industrialized "Western" countries to be transformed into industrial products, in the NIDL, Third World countries have become sites for the production of semi-processed and processed goods for world markets (Frobel et al. 1978).

Free-trade zones, or free-production zones, which are sites of production set up and managed by Third World hosts, are home to a new type of factory, the "offshore assembly" or "world market" factory. These factories are predominantly branches of large multinational corporations, but domestic businesses also carry out subcontracts for Western companies. Within both types of factories, the intermediary stages of production, those which are labour-intensive, unskilled and semi-skilled, are undertaken, with products being returned to the parent or subcontracting company for final assembly, finishing and sale. One of the key characteristics of these free-trade zone factories is their gender bias. Between 75-85 percent of employees in off-shore assembly factories world-wide are women, and the majority of these workers are young, single and childless (Elson and Pearson 1980; Ehrenreich and Fuentes 1981; ILO 1985).

The focus of this thesis will be the offshore assembly factories, or maquiladoras, which have been built in free-trade zones on the northern border of Mexico, specifically in the city of Juarez. Maquiladoras have become an

important component of the Mexican economy. In 1988 there were approximately 1,300 plants operating, which employed one-tenth of Mexico's industrial workforce. These plants imported $8 billion worth of U.S. parts alone, and added $2 billion in value (Baker et al. 1983b: 102; Grunwald and Flamm 1985). For the city of Juarez, maquiladoras have become the "economic lifeline". With 250 factories in 1988, Juarez factories employed one-third of the maquiladora workforce in Mexico, and an estimated 75-85 percent of these workers were women (Van Waas 1981). We will argue that given the vast number of unemployed Mexicans, both male and female, actively seeking work of any sort, and willing to accept minimum wage, the choice of particular sexual and demographic characteristics for a work force, in this case female, young, single etc., must be seen as a conscious, assertive choice by maquiladora managers.

The main questions this thesis seeks to answer are: Why are women, specifically young women, rather than men, the preferred labour force in Juarez offshore assembly factories ? Are women assembly workers hired as "women" or as "workers" ? How does gender affect employment opportunities ?

Many controversial theories as to why women predominate in unskilled assembly work exist in the literature. Answers range from arguments about nimble fingers and well-padded buttocks, docile personalities and cheapness, to economic theories about a segmented labour force, and feminist theories about the interaction of capitalism and patriarchy.

In attempting to answer the above questions, this thesis will look at the demand and supply factors which influence who is hired by, and who applies to the maquiladoras in one particular cultural and economic region, Ciudad Juarez. On this data base we will test a selection of theories to determine which are best able to explain the predominance of, and preference for, female workers in

assembly positions. By demand factors, we mean the hiring and personnel policies of management which, based on assumptions about the physical, psychological, and economic makeup of Mexican men and women, preferentially employ women to fill lower echelon assembly positions. To understand supply, we will look at the role of the sex/gender system for clues in understanding how men and women enter the labour force as individuals with different psychological traits, skills, ambitions, and life trajectories. We will also examine family survival strategies, and options available to men and women in Juarez. This will include reasons why assemblers both stay at the job and leave.

Why is it important to look at these issues ? Consider the following:

1) The provision of jobs for women is considered an important way of integrating women into the process of industrialization, with possibly far-reaching implications for their position in society in general.

2) The growth rate of the offshore assembly electronic and apparel industries in Mexico as employers of women has been very rapid, and further growth is believed to be high.

3) Women's concentrated employment as assemblers in these industries has been subject to international concern and criticism.

In sum, we need to understand the processes, both cultural, political and economic, of why and how women are selectively incorporated into certain forms of employment, and marginalized from others. Understanding these processes will help us to evaluate the employment opportunities of these industries in terms of improving the economic and social status of women in Mexico.

Although a library thesis, and not a summation of original fieldwork, the thesis does make a contribution to the body of anthropological knowledge. In attempting to answer a seemingly simple question, "Why are women preferred

?", the paper focuses on sex segregation in one particular cultural area, and thus provides a better understanding of how, and to a certain extent why, sex segregation is maintained and perpetuated. The uniqueness of this case study is that it attempts to understand sex segregation in an international arena, in other words, how gender selections for employees are made in the context of export-oriented production, and how the differing economic, political and cultural climates of Mexico and the United States interact to affect this selection.

In research for this thesis, it was discovered that very little anthropological study has been conducted about the relationship between gender and maquiladora employment. As a result of this omission, there is a paucity of data on male assembly workers. Studies on female maquiladora workers, while interesting, only present an incomplete picture of the processes at work between gender and labour force participation. We need to have comparative information on males to understand how the situation of females is different or unique.

The thesis will be organized as follows. Chapter one will focus on the preconditions, in First World industrialized, and Third World industrializing and newly industrialized countries, which have given rise to export-oriented production (EOP). The key points the chapter will stress are the importance of EOP for certain industries in the First World, and for the Third World countries such as Mexico which host foreign industries. The chapter will also emphasize how EOP has accelerated the entrance of women into the labour force of industrializing and newly industrialized countries, and, the major role that women have played as employees in export processing zone factories world-wide.

In chapter two we will examine how, compared to import substitution which did not draw many women into the industrial labour force, the new international division of

labour has created factory jobs for millions of Third World women. Global statistics demonstrate how critical the labour force participation of Third World women has been in the growth of industry in industrializing countries, and how countries with greater numbers of women in industry have grown more quickly.

The two main views about the effects of offshore assembly plant employment on women, the integration thesis, and the exploitation thesis, will be presented. The chapter will conclude with a discussion of whether the two views are mutually exclusive, and how the effects of EOP must vary according to country, factory type, economic cycles and alternative employment options for women.

Chapter three will introduce the country setting for the study - Mexico. The history of the border industrialization program (BIP) will be briefly summarized, and the nature of the agreement between Mexico and the United States will be examined. Following this, statistics on the growth of the border zone factories will be presented, emphasizing the number and distribution of factories, the number of employees in the zone, and the gender breakdown of employees.

The chapter will then focus on the city of Juarez, and discuss the working conditions in the assembly factories of the two key industries - electronics and apparel. This will include a summary of each industry's experience in Juarez, the nature of the industries, and their differing uses of technology. The key points the chapter will make are how the nature of the two industries, both being competitive, subject to recessions and fluctuations in market demand, increases their need for flexible and cheap labour. The chapter will also emphasize how the hierarchy in these factories is a clear sexual division of labour.

In chapter four, we will look at the demand-side factors which have determined **who** has been hired by both

multinational and domestic subcontracting companies. The chapter will present first-hand management explanations of why women and not men have been hired as the majority of assembly workers, and then criticize each of these explanations. The chapter will emphasize that the selection of maquiladora employees is not a haphazard affair, or a matter of simply following traditional hiring practices of the West, but a deliberate, well-calculated evaluation of the genders in terms of both perceived physical, social/cultural psychological traits and market status in the local economy to determine suitability for factory work.

Chapter five will examine the cultural backgrounds of the men and women who work in the assembly factories of Juarez. In particular it will look at the role that the sex/gender system in working class Juarez plays in reating "male" and "female" worker identities. This will help us to understand how capital perceives men and women as gendered employees, who offer different advantages, and who can and must be managed differently to exploit the traits of each. In the second part of the chapter we will look at the economics and demographics of the supply of labour to maquilas. This will include looking at the varying economic needs of men and women to work, and the employment alternatives available, to determine how attractive assembly work is in comparison to other options. Then we will look at the demographic profiles of male and female offshore assembly workers to determine who applies to these factories. Included will be reasons why assemblers both stay in factories and leave.

The last chapter will look at a selection of theories which attempt to explain the sexual division of labour in the capitalist labour market. Each theory or model will be briefly summarized, criticized, and applied to the Juarez data for its ability to explain maquiladora's preference for young women.

In the conclusion we will answer the questions posed in the introduction, and link these answers back to the theories on women in industrialization discussed in chapter two, to determine whether women's employment in maquiladoras can be classified as development, exploitation, or both.

Chapter One.
The Changing International Division of Labour.

In the last three decades the world capitalist system has undergone considerable changes. The old "classical" division of labour is being replaced by what economists are calling "the new international division of labour" (NIDL) (Frobel et al.: 1980). Maquiladoras, free-trade zone factories in Mexico, which are the subject of this thesis, are manifestations of these global changes. [1]

The "classical" international division of labour which dominated industrial development for the past 500 years, was characterized by a division between those countries which produced raw materials, and those which processed them into manufactured products. Raw materials were produced in the underdeveloped countries, generally colonies or ex-colonies, and then transported to Western Europe, the United States and later Japan, where they were transformed into industrial products. These items were then marketed in, or between, the industrialized countries themselves, or exported back to the Third World (Frobel et al. 1978: 125-6).

Since the 1960's, the preconditions for the expansion and accumulation of capital have changed, such that for the first time in history, underdeveloped or Third World countries have increasingly become the sites for the production of semi-processed and processed manufactured goods for world markets, rather than simply the suppliers of raw materials. Frobel, Heinrichs and Kreye argue that there now exists a trend towards a single world market for labour, and a single world market in industrial sites, which

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[1] An approximate translation for maquiladora is "grist mill", where farmers used to bring their grain for processing and have it returned to them (Fernandez-Kelly 1983c: 10).

encompasses both the traditional industrial, and the underdeveloped countries (Ibid.: 130, 140).

Specific types of industries in developed capitalist countries - generally competitive, labour-intensive industries - have begun to take advantage of a new type of manufacturing site in developing countries. Called " free-production zones", or "free-trade zones", these new sites of production, which are set up and managed by the Third World hosts, are home to a new type of factory - the "world market", or "offshore assembly" factory (Ibid.: 138). [2] There are two types of off-shore assembly factories. The majority are branches of large multinational corporations. However, domestic businesses, either owned by indigenous capitalists, or jointly organized by Third World businessmen and overseas customers, also subcontract for Western businesses. Both types of factories undertake the labour-intensive, unskilled and semi-skilled, intermediary stages of production of manufactured goods, with products being transported back to the parent or contracting company for final assembly, finishing and sale (Safa 1986: 58; Elson and Pearson 1980: 6). [3]

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[2] Free-trade zones are specific industrial sites offering "full infrastructural facilities, including in some cases rental of suitable factory accommodation and permitting duty free access of raw materials, components and capital equipment and similar facilities for exports" (Currie 1985: 1). World market factories are factories which are established in free-trade zones "for the industrial utilization of a labour force in manufacturing for the markets of the traditional industrialized countries" (Frobel et al. 1978: 139).

[3] According to the ILO, "Multinational enterprises include enterprises, whether they are of public, mixed or private ownership, which own or control production, distribution, services or other facilities outside the country in which they are based" (1985: 5). Third World enterprises engaging in manufacturing for export to Western markets are generally " smaller, less capital intensive, and more labour intensive than multinational subsidiaries" (Lim

For certain industry types in the Western world, the coincidence of the factors of international competition, an abundance of cheap Third World labour, and developments in technology and communications, have provided the impetus to fragment production (Frobel et al. 1978: 126).

For numerous less developed countries of the world, the NIDL has represented a new hope for industrialization and economic growth. Export-oriented industrialization in free-trade zones has replaced import-substitution as a key strategy for development in many countries. Mexico is one such example.

The incorporation of less developed countries into the NIDL was not however simply a matter of continued "exploitation" (Mies 1986: 113). Industrializing and newly industrialized countries actively sought out new economic relationships with Western governments and industries (Van Waas 1981; Fernandez-Kelly 1983a; Pena 1981: 160-1).

Preconditions for Change:

According to Frobel et al. there were three important changes in the world economy which initiated the relocation of specialized types of Western manufacturing industry. These were: 1) The creation of an inexhaustible world-wide reservoir of cheap, easily-replaceable labour, partly as a result of failed development projects such as the "Green Revolution", and rural-urban migration. 2) The development and refinement of technology (Vernon's "product cycle" theory), together with labour organization systems like Fordism and Taylorism, which facilitate the division and subdivision of the production process, such that most

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1983: 74). Domestic enterprises can include a variety of non-factory sites, including sweatshops, and have been associated with the increased use of domestic outwork or homework (Pearson 1986b: 68; International Labour Studies 1984; Berneria et al. 1987).

fragmented operations can be accomplished with little skill or training. [4] 3) New techniques of transport and communication which remove technical, organizational and cost barriers to production relocation (1978: 126-28; cf. Pearson [1986: 67], Young [1984: 387] and Van Waas [1981: 54]).

Two other factors, international competition and domestic labour shortages (particularly in the United States), were responsible for changes in the world market. In the 1960's, growth in international trade intensified competition among developed nations. Japan's penetration of Western consumer markets led competing American and Western European manufacturers to relocate production stages to developing countries as a means of reducing costs. The

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[4] Vernon's "Product Cycle Theory" looks to the "maturity" of a product to explain the establishment of foreign subsidiaries. Vernon argues that when a product is first developed and introduced, manufacturing will be kept in the United States. This enables the manufacturer control and flexibility over the production process. However, as the product "matures", the need for flexibility decreases as product design and inputs become more standardized. Export markets which demand production at cheaper economies of scale, and competition in production, eventually compel manufacturers to relocate production facilities to lower wage countries (Van Waas 1981: 54-5).

"Fordism" is a system of industrial organization which uses the automated conveyor belt, or assembly line to enable management to maintain near total control over the speed of work. The three principles of Fordism are: **"division of labor** - via increasing specialization and deskilling of the labor process, **accuracy** - via standardization of manual operations and assembly components, and **continuity** - via mass production on a continuous basis" (Pena 1983: 101-2, Pena 1986: 135). "Taylorism" is a system of managerial control over workers which utilizes time and motion studies as a method for redesigning the skills content of work. Key components of Taylorism are: a)management control over the way production is to be fragmented and reorganized, b) managerial hegemony over the knowledge needed to redesign the content of manual work (Pena 1983: 98-99). Both systems are part of what Braverman (1974) has called the process of "deskilling".

growth slump in Western and world markets in the 1970's made these competitive pressures even more intense. Indigenous entrepreneurs in newly industrializing capitalist countries like Hong Kong and Singapore also began manufacturing for export to Western markets in the 1960's. This further prompted competitive Western industries to relocate to these same countries in order to compete in their own home markets (Lim 1983b: 71).

In the 1960's and early 1970's, the mature Western economies also experienced tight domestic labour markets characterized by "low unemployment rates, high wages, and chronic labor shortages in many industries" (Ibid.: 72). Scarce immigrant labour, and fringe and welfare benefits added to the labour costs (Safa 1983: 6). Labour-intensive industries such as those which produce garments, toys and electronic components, and which employ large numbers of workers in generally unskilled or low-skilled jobs were the most affected - losing their international comparative advantage (Lim 1983b: 72). The cheap labour in developing countries' free-trade zones offered a solution to these enterprises to remain competitive.

In summary, certain First World industries relocated selective production stages to developing countries' free-trade zones in response to international competition and domestic labour shortages. This relocation was motivated by an abundance of cheap labour in the Third World, and was facilitated by new developments in labour management systems, production technology, transportation and communications.

In the late 1960's, numerous developing countries, including Mexico, were looking for new growth models as alternatives to the policy of import-substitution, which had dominated from the 1940's onward (Mitter 1986: 7; Landsberg

1979: 51). [5] Import-substitution, which involved producing goods which had formerly been imported, proved to be highly problematic as a strategy for economic growth. The policy tended to "provide luxury items for the urban-based elites at the expense of necessary investment in the infrastructure of the rural areas, where the majority of the people lived in...poverty" (Mitter 1986: 31). The combined factors of the narrowness of the domestic market for locally manufactured luxury goods, highly protected markets and expensive imported inputs resulted in countries being left with "a disproportionate bill for essential imports of raw materials and parts to make the "inessential" goods whose import was previously restricted" (Ibid.: 32). Therefore, for Third World countries with inward oriented import-substitution policies, the results included: 1) greater starvation for the majority of the people, 2) limited industrialization, 3) growing regional inequalities, 4) massive unemployment and 5) larger deficits and debt (Ibid.: 51; Lim 1978; Duncan 1976; Van Waas 1981). These effects were severely debilitating.

For the governments of countries in East, and South East Asia, and Latin America, export oriented industrialization (EOI) seemed like a potential answer to at least some of these urgent problems. Western businesses were invited by Third World governments to invest their foreign exchange and technical expertise in the free-trade zones they had built, and take advantage of not only cheap labour, but a host of other economically attractive

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[5] Not all countries now exporting manufactures to Western markets went through a stage of import-substitution. The World Bank argues that multinationals "have made it easier for some developing countries to begin exporting manufactures without going through an initial phase of import-substitution" (1987:46).

benefits [6] This strategy completed a full circle. Once again, Third World development was closely tied to the external market (Mitter 1986; Landsberg 1979).

The model of EOI received not only the blessing of, but was actively promoted by powerful Western-dominated international agencies. These included the World Bank, the International Monetary Fund (IMF), the United Nations Industrial Development Organization (UNIDO), the Organization for Economic Cooperation and Development (OECD), and bilateral international development agencies like the United States Agency for International Development (USAID) (Mies 1986: 113; Sen and Grown 1987: 39; Frobel et al. 1978: 129; Ehrenreich and Fuentes 1981: 58-9; Mitter 1986: 8; Joekes and Moayedi 1987: 1). In the 1960's, UNIDO established a model for free-trade zones which is still being consulted. Within their overall programme for the promotion of export oriented industries in developing countries, UNIDO has assisted in the planning and construction of free-trade zones, and lists the following three goals as attainable through the instruments of free-trade zones and world market factories: " 1) the creation of new jobs and consequent elimination of unemployment, 2) the training of a skilled industrial work-force and access to modern technology, and 3) access to increased foreign exchange receipts and a wider scope within which developing countries can conduct their foreign trade policies" (Frobel et al. 1980: 366). The World Bank has over the last two decades lent "several billion dollars to finance the roads, airports, power plants, and even the first-class hotels that multinational corporations need in order to set up business

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[6] Although benefits vary between zones and countries, they can include anti-strike laws, no import quotas, no foreign exchange controls, unlimited profits repatriation, long tax holidays, cheap loans, subsidized utilities, no local provincial taxes, 100% foreign ownership, and no customs duties (War on Want 1988: 5).

in Third World countries" (Ehrenreich and Fuentes 1981: 58). And USAID believes that EOI is "the optimal strategy for large and small developing countries alike" (Joekes and Moayedi 1987: 1).

Given the dire problems that countries in the post import - substitution period faced, and the possibility of partial solutions that export oriented industrialization, as promoted by international organizations, offered, is it any wonder that EOI became, for countries such as Mexico, the "new wisdom" of economic growth (Van Waas 1981: 52) ?

The Impact of Export Oriented Industrialization:

The impact of EOI on first world industries has been significant, but restricted to specific types of industry. [7] It is labour-intensive, competitive industries, which hire large numbers of unskilled and low skilled workers, that have established assembly factories in free-trade zones (Currie 1985: 206; Lim 1978: 4; Lim 1983b: 72;

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[7] Almost all Western industrialized countries, to varying degrees, have foreign direct investment (FDI) - the channel for multinationals' investments - in developing countries. The World Bank estimates that in 1987, 25-30 percent of the world's stock of FDI was in developing countries. About 40 percent of this was in the manufacturing sector. The United States is by far the most active investor, followed by the United Kingdom, West Germany, Japan, France, the Netherlands and other smaller investors (World Bank 1987: 117).

Canada falls into the category of "others". Almost all Canadian investments in the Third World are aimed at production for local markets, and there is limited transnational manufacturing for export from developing countries (Adams 1980: 120). It has been suggested however, that with the passing of the Canada - U.S. Free Trade Agreement in 1987, Canada will be forced to take advantage of free trade zone labour in order to compete with U.S. products which are assembled in offshore factories. Although the Free Trade Agreement stipulates that goods processed in a third country are not qualified for duty-free entry into Canada, experts argue that the entry of such products will be difficult to police (The CBC 1988: 6, Canadian Government 1987: 15).

Fernandez-Kelly 1983a: 83). These industries can be classified into two groups, those using "traditional" or old established technologies, for example, garments, textiles, plastic toys etc; and those which use "modern" technologies, such as electrical goods and electronic assembly industries (Elson and Pearson 1980: 4). The distinguishing factors of these industries is not the type of technology they utilize, but that their product's assembly is labour-intensive, and that their products are destined for a highly competitive market, subject to recessions, fluctuations in demand, and changes in design.

Multinationals have played a dominant, though not determinant, role in the changing international division of labour. The North-South Institute has written that "without such TNC (transnational corporation) investment, the recent expansion of Third World manufactured exports would have been substantially slower" (1985: 7). [8] In fact for many businesses, faced with the pressures of competition, particularly from rivals utilizing free-trade zones, production relocation is becoming the key to survival. [9] Duncan insists that "Because of the nature of global oligopolistic competition during a period of relatively free-trade, no mature industry can afford **not** to expand its production into the underdeveloped world" (1976: 8, original

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[8] Van Waas argues that the participation of multinational corporations in off-shore assembly production, or what he calls "integrated transnational production", is simply the fourth historical phase of MNC operations abroad. This phase is characterized by a "tight integration," rather than "general autonomy," of the off-shore branch into the on-going production processes of the entire corporation (1981:16).

[9] In the words of one IBM executive, "Once management understands and accepts this world economy, its view of the marketplace - and its planning - necessarily expand. The world outside the home country is no longer viewed as [a] series of disconnected customers and prospects for its products, but as an extension of a single market" (Duncan 1976: 6).

emphasis). And Frobel et al. write that "any company, almost irrespective of its size, which wishes to survive is now forced to initiate a transnational reorganization of production to adapt to these qualitatively new conditions" (1980: 14-15).

The NIDL has also had an impact on developing countries. By mid 1987 there were 88 export processing zones world-wide, either in operation or being established (Centre for Caribbean Dialogue 1987: 3). [10] Investment in these zones by First World industry, in the form of offshore subsidiary factories and subcontracting arrangements with indigenous enterprises, has significantly contributed to the growth of manufactured exports from developing countries.

Although it is unfortunately not known what proportion of developing countries' total manufactured exports originate in export processing zones, the following statistics support statements about the growth of manufactured exports from developing countries (Joekes and Moayedi 1987: 20). The top eight Third World exporters of manufactured goods to developed nations are Hong Kong, South Korea, Mexico, Brazil, India, Singapore, Malaysia and Argentina (Landsberg 1979: 52). According to 1972 data, these eight countries accounted for almost 60% of total Third World exports of manufactures, and over 65% of total Third World industrial production. In 1973 they accounted for an overwhelming percentage of all Third World exports to

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[10]

Area/Region	Exist	Being Set Up
Asia & the Pacific	21	17
Latin America & the Caribbean	20	6
Middle East	8	1
Africa	6	6
Europe	-	3
Total	55	33 = 88

(source: Centre for Caribbean Dialogue 1987: 3)

developed capitalist countries in three product lines- engineering and metal products, clothing and miscellaneous light manufacturing (Ibid.: 52). Between 1973 and 1985, the share of offshore assembly products in total manufactured imports by the United States, as an example, increased by 2.4 % for Hong Kong, 4.2 % for South Korea, 17.1 % for Singapore, and a significant 30.2 % for Mexico (World Bank 1987: 45). The further potential growth rate of EOI is generally believed to be high (North-South Institute 1985: 1).

To recapitulate, participation in the NIDL has been the key to survival for certain types of First World industry. For Third World countries hosting free-trade zones, EOI has become a small but significant part of their overall development plans.

The Gender Factor in Employment:

Export manufacturing accounts for only about 1.5 percent of total employment in developing countries[11] (North-South Institute 1985: 6). However, it is estimated that nearly 80 percent of this number of export processing zone employees are women (Mitter 1986: 14; Frobel et al. 1980: 344-5; Currie 1985: 3). [12] So heavily female-

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[11] Statistics on the total world-wide employment in export processing zones in developing countries vary considerably, from one estimate of 1 million (ILO 1985), (Joekes et al. 1987: 20) to one of more than 2 million (Ehrenreich et al. 1980: 53).

In 1984, Asia had 57 % of all known employment generated by zones, Central American and the Caribbean had 29 % of known employment, South America had 8%, while North Africa, the Mediterranean and the Middle East were of relatively little importance (Currie 1985: 3).

[12] Women make up 80% of the work force in Mauritius, 77% in Mexico, but 80% on the northern border of Mexico and in Taiwan. South Korean women make up 75% of zone employees, while Sri Lankan women make up 88% in their zones

oriented are these offshore assembly factories that they have been called "female-intensive" industries (Lim 1978: 4). Joekes and Moayedi have written, "Given that women represent only 32 percent of the total labor force in developing countries and a slightly lower proportion of the labor force in industry - 26 percent, the disproportionate access that women have to export manufacturing employment and their overwhelming importance as suppliers of labor for the export manufacturing sector is quite phenomenal" (1987: 17).

The reasons for this systematic preference for female labour will be examined in the body of this paper. For now it is important to note not only the gender "bias" of offshore assembly factories, but how instrumental these factories have been in accelerating the entrance of Third World women into the industrial labour force (Joekes 1986: 1). [13]

To summarize, since the 1960's there has been a global reorganization in the structure of employment involving the relocation of production assembly jobs in certain industries, from high wage countries in the West, to low wage industrializing and newly industrialized countries. The major features of these transformations are the centralization of market and technology in the West, and the decentralization of production to pools of cheap labour world-wide. Multinationals and Third World women have played a dominant role in the NIDL. Key points to remember

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(Currie 1985: 3).

[13] In Singapore for example, export processing zones are attributed with helping increase the labour force participation rate of women from 10 percent in 1968, to more than one third in 1978. While in Malaysia, "because of female-labor-intensive industries like electronics, garments and footwear, women form slightly over half the total manufacturing labor force, and one third of the total labor force" (Lim 1978: 8).

are 1) The importance of offshore assembly plants for the survival of certain First World industries. 2) The major role women have played as employees in EPZs world wide.

Chapter Two.
Theories of Women and Industrialization.

Scholars interested in women in industrializing and newly industrializing countries have paid considerable attention to the changes that have come about in the global economy in the last 30 years, particularly to the way Third World women have been incorporated as a preferred labour force into the export manufacturing sector. Compared to the policy of import-substitution which did not draw many women into the industrial labour force, the new international division of labour (NIDL) has created factory jobs for at least one million Third World women (Elson and Pearson 1980: 1; Sassen-Koob 1984: 1146). In fact in 1985, women's employment in free-trade zones was the fastest-growing sector of employment in the world (Taylor et al. 1985: 39).

Third World women's role in industrialization has, however, been limited to a sub-set of industries, and a particular set of occupations. Most female industrial workers are concentrated in industries producing light consumer goods such as garments, toys and electronic components (Joekes 1986: 1-5). These jobs tend to be low-income and low-skilled, in industries which are "labour-intensive, sensitive to market fluctuations, and have a low level of technology, poor working conditions and safety measures and little security of employment" (North-South Institute 1985: 2; UNIDO 1980: 7-9; UNIDO 1981: 39-40, 50). [14] Women are poorly represented in other sectors of

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[14] Joekes explains that the sexual divisions present in all societies are responsible for the way that female labour is channelled into a sub-set of "light" industries and into particular types of "unskilled" and "semi-skilled" occupations (1986: 1).

She argues that there are two main types of consequences from the crowding of women into these

manufacturing industry where "production processes tend to be more advanced technologically and more heavily capitalised" (Joekes 1986: 1). [15]

While in the mid 1970's to 1980's the concern of scholars, economists, and development experts was how to "integrate" women into development, the growing participation of Third World women in the industrial sector has shifted focus to investigating and analyzing the way women are being selectively integrated into the developing economies of industrializing countries (Scott 1985; Charleton 1984; Sassen-Koob 1984: 1146-7). There are two key theories about the effects on women of employment in offshore assembly factories. These are the integration thesis and the exploitation thesis. Both of these will be examined below.

Integration and Exploitation Theses:

The integration thesis is essentially modernization theory applied to women. Advocates of the thesis share with liberals, marxists and liberal feminists the view that

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industries: "1)The crowding has helped to keep female wages even lower than the relatively unskilled nature of the work warrants; and it has probably also...militated against improvement in working conditions for women; and it has entrenched a low level of expectations about the quality of employment for women among men and women alike. 2) It makes it possible that changes in international market conditions in recent years have had a differential impact on 'male' industries and 'female' industries" (Ibid.: 2).

[15] Sassen-Koob argues that the distinction between "traditional" and "modern" forms of manufacturing erroneously shows that women's share of jobs have declined as an industry modernizes. She suggests that a better formulation would be a distinction between labour-intensive and capital-intensive forms of production, given the continued viability, indeed growth of the "traditional" labour-intensive forms of manufacturing such as apparel industries in Third World free-trade zone factories (1984: 1147).

incorporation into the industrial sector is beneficial to women (Jaquette 1982: 268-275; Ruiz and Tiano 1986: 6-7; Joekes 1986: 3; Tiano 1986b: 158-9; Elson and Pearson 1980: 24). According to this view,

> export-oriented industrialization leads to promote liberation and sexual equality by providing wage employment and integrating women into the modern labor market. Working in the export sector for multinationals not only provides women with a regular income and greater economic security, it also provides productive skills that give women a chance of upward mobility within and among industrial firms. Further, rational social organization of modern industrial firms can stimulate development of liberal, egalitarian values which undermine traditional sex roles (Joekes and Moayedi 1987: 24).

Employment in free-trade zone factories is also believed to offer women economic alternatives to early marriage and childbearing (Grossman 1979: 11), and enhances a woman's self-image by increasing her self-automony (Lim 1981: 11; 1983b: 83). In short, the process of modernization, or industrialization, is perceived as sex-neutral, and particularly beneficial to women "who have been more hemmed in than men by traditional values circumscribing their roles" (Jaquette 1982: 269).

Supporters of the exploitation thesis share with social feminists and dependency theorists the view that modernization is not a neutral process, but one that obeys the dictates of capital (Beneria and Sen 1986: 150). Tracing the historic use of women in industry, critics stress that women, like children and immigrants, have been pulled into industry during certain periods of capitalist expansion, and that the incorporation of Third World women into export-oriented industries is simply the latest manifestation of this pattern (Safa 1986: 59-60; Nash 1983:

7-9; Fernandez-Kelly 1983a: 73-93; Charleton 1984: 138-9).[16]

According to this view, women in the Third World provide multinational corporations with a cheap and easily expendable labor force because of "discriminatory hiring practices, sex-segregated labour markets, and inadequate preparation which weakens their position within the labor market" (Tiano 1986b: 159). The intense competition for factory jobs, it is argued, keeps wages low, and workers docile and vulnerable to sexual exploitation (Ibid.: 159; Chapkis and Enloe 1983: 2). The jobs that are available to these women are seen as dehumanizing, threatening to women's physical and mental health, unskilled, dead-end and unlikely to provide them with any transferable skills (Joekes and Moayedi 1987: 24-5). The general lack of unionization is seen as a further inhibitor to women changing their circumstances (Tiano 1986b: 159).

Critics also charge that multinationals take advantage of, and reinforce women's structural vulnerability within the labour market and the family (Tiano 1986c: 78; Fernandez-Kelly 1983a: 220; Lim 1983b). Company-sponsored beauty pageants, makeup demonstrations, cooking classes and sex education seminars which reinforce workers' traditional notions of femininity, and supervisors' close monitoring of not only the workers' output but personal lives, are seen to

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[16] Charleton writes, "For Third World women, there is a strong historical precedent for working in, and being exploited in, factories. The movement of women out of the home and/or out of agriculture into mechanized manufacturing industries was one of the central characteristics of industrialization in Europe and North America" (1984: 139).

According to Fernandez-Kelly, women, like children and immigrants, are used to maximize the growth and profit potential of firms at times of early industrialization or when industries begin to explore new areas of production and markets. In operations such as EOI, which are labour-intensive, the employment of women is a way of keeping costs down (1983: 84).

"deepen obeisance to authority and acquiescence to traditional sex roles...rather than encourag[e] autonomy, independence, and self-reliance" (Tiano 1986c: 80).

In sum, while advocates of the exploitation thesis do acknowledge that EOI absorbs many women into the world capitalist system, they argue that the price paid is economic exploitation. Tiano writes, "The exploitation of women is particularly pronounced in the Third World, where racism and dependency exacerbate gender inequalities" (Ibid.: 160).

A False Dichotomy ?

Scholars such as Tiano (1986b; 1986c) and Elson and Pearson (1980) have suggested that the two perspectives of the integration and exploitation theses are not polaric. Tiano makes three points. First, she argues that industrialization's effects on Third World women differ across social classes and cultural and geographical areas, and that therefore, industrialization "may enhance options for educated, middle-class women while closing doors for poor and unskilled women." Second, integration and exploitation are relative, and "what might be 'exploitation' for one person might be 'integration' for another." Finally, she suggests that the effects of industrialization may be considered "liberating" in some areas of women's lives, and counteractive in others (1986b: 169).

Elson and Pearson elaborate on Tiano's third point- the concept of possible multiple effects of industrialization on women. They distinguish three tendencies in the relationship between factory employment and the subordination of women as a gender: 1) A tendency to **intensify** the existing forms of gender subordination. 2) A tendency to **decompose** existing forms of gender subordination. 3) A tendency to **recompose** new forms of gender subordination (1980: 27). The authors clarify that these are not mutually exclusive tendencies, given that

"There is evidence of all three tendencies at work in the case of women employed in world market factories" (Ibid.: 27).

Rather than ending women's subordination, Elson and Pearson suggest entry into waged labour tends to transform it. In some cases, existing forms of gender subordination are intensified. The authors cite the example of Malaysia, where "Instead of undermining the father's authority over the daughter by encouraging 'modern' 'Western' behaviour, it [the multinational company] pursues a policy of reinforcement by voluntarily installing prayer rooms in the factory and letting the girls wear their traditional attire, and enforces a strict and rigid discipline in the work place" (1980: 28). Elson and Pearson write that

> While there is a tendency for the decomposition of some existing forms of gender subordination, such as the control of fathers and brothers over the life styles of young women, there is also a tendency towards the recomposition of gender subordination in new forms...such as that of women employees to male factory bosses (1980: 28-31).

Thus, while the process of decomposition can bring women some independence, the process of recomposition can make them vulnerable in new ways, such as to job loss as a result of the instability of world market factories, or to sexual harassment and/or exploitation because of the "lack of respectability" reputation attached to "factory girls" (Ibid.: 29; Lim 1981: 189).

In conclusion, the effects of Third World women's participation in free-trade zone factories do not seem to be either clearly beneficial or detrimental, but vary according to type of industry and economic cycles. Neither thesis can be evaluated without historical data to provide a baseline for comparing the situation of women before and after industrialization, or considering women's alternative employment options (Tiano 1986b: 168; Tiano 1986c: 82).

Chapter Three.
The Mexican Border Industrialization Program.

This chapter will be divided into three sections. Section one will briefly summarize some of the key socio-economic characteristics of Mexico. Section two will introduce the northern border area, and the Mexican Border Industrialization Program (BIP). The discussion will include an assessment of the impact BIP has made on Mexico, and the advantages it offers to the United States - BIP's best customer. In section three we will look at the city of Juarez, and the free-trade zone factories that it hosts. This will include a discussion of the electronic and apparel industries which predominate in the zones, and their employment practices.

Mexico: The Setting.

In 1987 Mexico's national population was estimated to be 81,900,000. Half of these people were under the age of 15. With an annual rate of growth of 2.5 percent, the population is expected to reach 112.8 million by the year 2000 (Grolier Academic Encyclopedia 1988: 359). The distribution of the population, 70 percent urban and 30 percent rural, is a reflection of the high unemployment rate, particularly in rural areas, and the search for jobs in cities, by the estimated 800,000 new workers who reach employment age each year (Ibid.: 356). The distribution of the labour force in 1985 was as follows, 26 percent in agriculture, forestry and fishing, 13.9 percent in commerce, 12.8 percent in manufacturing, 9.5 percent in construction, and 31.4 percent in services (Ibid.: 356).

Economically, Mexico is considered to be a newly industrialized country (NIC), and is ranked by the World Bank in the upper middle-income category (Beneria and Roldan

1987: 17) . In 1985, the country's gross national product (GNP) was $164 billion U.S., and Mexicans had a per capita income of $2,080 U.S. Fernandez-Kelly argues however, that this per capita income "is more of a fictitious indicator rather than a true expression of development" (1983a: 22). Like many developing countries, Mexico has a structured system of inequality. Originally instituted according to skin colour - white European, brown indigenous Indian, and black African - the caste-like "pigmentocracy" was replaced by a semi-rigid class structure which emerged in the post Mexican revolutionary period (Stoddard 1987: 3). In the contemporary structure, only a small percentage of the population, the small but powerful upper-class of industrialists and wealthy politicians, and the middle-class merchants and professionals, enjoy acceptable living conditions. The rest of the population, peasants, indigenous groups and the urban poor, are impoverished (Fernandez-Kelly 1983a: 22; Hellman 1978: 86). According to World Bank statistics, in 1977, the lowest 20 percent of households received 2.9 percent of total household income, while the highest 10 percent received over 40 percent of the total (World Bank 1983, in Beneria and Lourdes 1987: 18). In addition, Forbes writes, "despite steady growth in per capita GNP since World War II, the material well-being of the poorest 40 percent of the Mexican population has changed little since 1910" (1984, in Young 1986a: 15).

This system of inequality is perpetuated by the autocratic, centralist government, the Institutional Revolutionary Party (PRI), which has dominated national politics since the 1930's, and not only supports, but is highly influenced by the bourgeois "ruling class" (Hellman

1978: 14). [17] Stoddard argues that Mexico's structural inequality and centralization of power have contributed to the countries' economic problems in three ways.

> 1)Nationalist goals have placed a high priority on Mexican ownership, not control - the wealthy reflect national ownership but do not contribute their share to national budget; 2)Feudal-like loyalties within the political and economic systems work through personalistic relations which eventually become institutionalized as "mordida" and corruption; 3)This accumulation of wealth by those in power and trust is often transferred out of the country , a phenomenon known as "capital flight (1987: 5, original emphasis).

Thus for Stoddard, the structural inequality in Mexico "reflects a small and powerful class in control of Mexico's political and financial policies which cite nationalist goals but are designed for its own interest" (Ibid.: 6).

Mexico's financial woes are compounded by two other factors, a staggering public debt, estimated in 1987 to be $103 billion U.S., and a combined underemployment and unemployment rate of between 55 to 61 percent of Mexican workers (Baker et al. 1988a: 49; Stoddard 1987: 2; Van Waas 1981: [note 253] 195-6). Now, in the post import-substitution era, and experiencing difficulties with economic efficiency, equity, income distribution and unemployment, Mexico looks towards export-oriented industrialization as a potential answer to some of these

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[17] Hellman writes that the bourgeois class, made up of industrialists, landowners, agriculturalists, professionals, and pre-revolutionary elite, is the most influential pressure group in Mexico. Responsible for a large percentage of the GNP, and supported by foreign industrialists, the chamber of commerce, and other clubs organized to protect their interests, the national bourgeois class is able to exercise significant power over the government and its policy, to the extent of overriding decisions of the official party. "National development policies reflect the interests of the national bourgeois and its foreign business partners" (1978: 51-4).

problems. [18] The northern border cities are crucial to this plan (Van Waas 1981: 64-5).

The Northern Border

The Mexico-U.S. binational border region, which is twenty miles wide, and extends nearly two thousand miles from the Pacific ocean to the Gulf of Mexico, has been described as economically atypical for both countries. On the U.S. side, the border reflects the " greatest poverty cesspool" in America, and has an unusually high population growth rate (Stoddard 1987: 8). On the Mexican side, the standard of living is relatively high, by Mexican standards, and also has a high population growth rate (Ibid: 8). [19] Mexican border cities are characterized by the highest minimum wage earned in the country, but the advantages of this are undercut by a high cost of living (Fernandez-Kelly 1983b: 212).

In 1988, the six Mexican states on the border were home to sixteen percent of the nation's population (Baker et al. 1988a: 48). In fact, after Mexico City, the border cities constitute the most rapidly growing, and densely populated region in the country (Bustamante 1983: 225). The reason behind both the growth and population concentration is not only the elevated birth rate, but also the very high rates of migration to the border cities, particularly by young

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[18] In 1986, the director for industrial promotion for the Secretariat of Commerce and Industrial Production declared, "We cannot afford to be caught napping and left out of the rapidly increasing changes in technology, industrial processes, and the world market", and urged Mexico to use the maquiladoras as a transitional stage to expand Mexican-owned export industries (Stoddard 1987: 2).

[19] In the decade 1960-70, the population growth rate in the border region was 5.25 percent, compared to 3.04 percent for the nation as a whole (Bustamante 1983: 225-6).

women. [20] In the year of 1970 for example, migrants made up 29.3 percent of the border residents (Ibid.: 231; Fernandez Kelly 1983a: 20-1).

From their earliest days, Mexican border cities have been significantly shaped by the proximity of American culture, and labour opportunities offered by U.S. enterprises. Mexican men have worked as agricultural labourers in the U.S. sunbelt, and as labourers in Mexican-based, U.S. distilleries and fibre transformation operations. Mexican women have planted and picked cotton, and worked in Mexican-based American food transformation industries (Stoddard 1987: 15). In fact Northern Mexican labour and commodities have been so thoroughly integrated into the U.S. economy, that growth has been directly related to the demands and circumstances emanating from the United states (Fernandez-Kelly 1983a: 20).

For the millions of under - and unemployed people in Mexico, border cities are seen as "havens of opportunity" (Kramer 1985: 738). The possibilities of employment as migrants, both legal and illegal, in the United States, in American enterprises, or in the informal and service sectors catering to the demands of tourists, continue to attract millions of Mexicans to the Northern border region each year (Monsivais 1978: 57-62). The Border Industrialization Program, which was established in 1965, can be seen as a continuation of these trends. The BIP has strengthened the economic ties of the border cities to the American economy,

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[20] According to Tiano, women aged 10 to 29, the age category from which maquiladoras recruit their workers, make up the largest proportion of migrants to the border states. The data on women's reasons for migrating to the north are however scant, and cannot support the claim that the BIP augments border unemployment by increasing the labour supply. Tiano writes, "it is clear that the steady northward flow of young women helps maintain unemployment levels in the face of job shortages and replenishes the supply of potential maquiladora workers" (1984: 9).

and has made the "prosperous" northern region seem even more attractive to Mexicans seeking employment.

The Border Industrialization Program:

The Border Industrialization Program (BIP) was the product of a bilateral agreement between the United States and Mexico, which established the northern border area of Mexico, approximately 12 1/4 miles wide, as a free trade zone. Within this zone, items could be manufactured, assembled, and transported across the binational border without being charged normal import duties (Stoddard 1987: 17). As a product of the collaboration of the capitalists and governments in both the United States and Mexico, the BIP offered advantages to both countries (Pena 1981: 169). [21] We will examine the implications of the BIP for each country.

Implications of the BIP for Mexico:

With the creation of BIP, Mexico entered into a more formalized relationship of dependent development with the United States. By dependent development, we mean a condition of dependence combined with development in the form of export-manufacturing for American-controlled industries. [22] This form of dependency emerges from the

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[21] More specifically, the BIP was created in response to the problem of Mexican **male** unemployment at the border, as a result of the United States termination of the Bracero Program, which had regulated the seasonal migration of Mexican male agricultural workers to the U.S. South West. With the program's demise 200,000 men returned to the border region (Fernandez-Kelly 1983a: 26). According to Van Waas, "the use of women as a primary labor force in maquilas was neither foreseen nor intended by the Mexican government in the design of the BIP" (1981: 346 [footnote 431]).

[22] According to Evans dependent development refers to cases where "capital accumulation and diversified industrialization of a more than superficial sort are not

creation of a "triple alliance" between international capital, in this instance U.S.capital, local capital and the Mexican State apparatus (Evans 1979; Cardoso and Falleto 1979). From the point of view of both the Mexican government and the Mexican capitalist elite on the northern border, the BIP was a vehicle to take advantage of the wealth and proximity of the United States.

According to article 321 of the Mexican Customs Code, two types of industrial enterprises are classified as maquiladoras, the free-trade zone factories which are the corner stone of the BIP. First, these include those enterprises (generally multinational subsidiaries) which, with temporarily imported machinery, whatever the manufacturing costs, export their total production. Second are those enterprises (generally indigenous businesses) with a permanent industrial plant originally meant to supply the domestic market, which later on direct part or all of their production for exportation, and for which the direct manufacturing cost of their product at the time of exportation does not reach 40 percent (Bustamante 1983: 241).

The three main objectives of the government of Mexico for the BIP were

> 1) The creation of new jobs, larger incomes, and better standards of living for workers in the border area, 2) The improvement of labor skills levels through the acquisition of technology and training supplied by assembly plants, and, 3) the reduction of Mexico's trade deficit by increasing the consumption of Mexican components in maquiladora operations (Bustamante 1983: 235-6).

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only occurring in a peripheral country, but are dominating the transformation of its economy and social structure" (1979: 32). It is " a special instance of dependency, characterized by the association or alliance of international and local capital. The state also joins the alliance as an active partner, and the resulting triple alliance is a fundamental factor in the emergence of dependent development" (Ibid.: 32).

Mexican laws pertaining to export processing zones were designed to be as accommodating as possible to foreign investors, to both attract U.S. capital, and ensure that its objectives for the BIP were met. Initial legislation permitted customs-free import and export of raw material, machinery and spare parts, one hundred percent foreign control over investment as long as total production was exported, [23] a thirty year right to possession over land destined for the maquiladora establishment, and a duty-free environment (Ibid.: 241; Currie 1985: 15; Fernandez-Kelly 1983a: 32). Additional concessions were later made to allow foreign investors more latitude. In 1972, the Mexican government adjusted its legislation which restricted the establishment of maquiladoras to the border zone, permitting them anywhere in the country except major industrial centers which are considered saturated. In 1973 BIP import procedures were simplified, allowing import permit applications to be approved locally, rather than in Mexico City. Spot checks rather than total unloading of incoming and outgoing shipments, and the posting of an annual bond by firms, rather than individual shipment bonding also became permissible (Ibid.: 32-3; Sanders 1986: 3). All of these allowances illustrate the growing importance of the BIP to the Mexican government.

By 1985 maquiladora industries had become Mexico's second most important source of foreign exchange, after petroleum, but ahead of tourism (Stoddard 1987: 2). Their

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[23] Fernandez-Kelly claims that this is an extraordinary concession on the part of the Mexican government, given that under normal circumstances, industries in Mexico are not allowed more than 49 percent foreign control (1983a: 33).

In 1983, the government decided that some foreign companies could sell as much as 20 percent in the domestic market if national production was not sufficient, or if there is no domestic producer of the product (Sanders 1986: 4, Currie 1985: 15).

importance is likely to increase, since they are central to the economic revival plan of President Salinas de Gortari (Baker et al. 1988a: 48). [24]

Implications of the BIP for the United States:

From the point of view of American businesses, the utilization of free-trade zone assembly factories in Mexico offers distinct advantages over free-trade zones in other developing countries. [25] Two key benefits are lower wages, in comparison to United States workers, and cheaper transportation costs. Van Waas has calculated that by operating in the BIP, American capital (in 1981) was saving over $1 billion annually over comparable U.S. wage costs, and estimated that this would rise to $1.7 billion annually by 1983. In addition, the productivity rate of BIP workers, which is estimated to be between 15 to 40 percent higher than comparable U.S. workers, increases the wage savings cost (1981: 87-9). A 1984 U.S. study estimated that in 1985, companies moving to Mexico would save $20,000 annually per employee (U.S.-L.D.C. Trade Link Project 1984: 87).

Although wages in Mexico are slightly higher than in other EPZ countries, they have been strongly offset by

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[24] In 1987, President Salinas said he believes maquiladoras can be a "crucial lever for economic expansion", given low oil prices and Mexico's debt (Baker et al. 1988b: 102).

[25] Provisions 806.30 and 807 of the U.S. tariff legislation were critical to the development of the BIP. These two items "permit the basing of import duties on the value added outside the United States when the products are not substantially altered in character by manufacturing activities in foreign countries" (Fernandez-Kelly 1983a: 29). Item 806.30 has been important in promoting the expansion of electric and electronic offshore production plants, while 807 has aided apparel, toy and other light industry operation (Ibid.: 29).

cheaper transportation costs (Dillman 1983: 51).[26] Mexico's proximity to the United States permits goods to be transported by trucks, rather than trucks and ships as would be required for Asian and Caribbean countries (Sanders 1986: 1; Dillman 1983: 51).

The BIP also offers less quantifiable advantages to American businesses. Fernandez-Kelly writes that the border cities house labour and technicians of various grades and skills, excellent infrastructure and banking services, and "a social climate that guarantees uninterrupted production and a high level of output" (1983a: 28). The high unemployment rate guarantees not only a large pool of "fresh" labour to choose from, but one willing to do shift work 6 days a week. The higher productivity of Mexican labour compared to U.S. workers is seen as extremely attractive. In addition, adjacency to the U.S. makes it possible for American management to work in Mexico, but reside in a U.S. border city, thus enabling them to retain "the American way of life" (Ibid.: 28-9).

In sum, the advantages the BIP offers to the members of the triple alliance, U.S. capitalists, the Mexican government and northern Mexican capitalists, are numerous, and have been responsible for the significant growth of Mexico's assembly operations. Out of all the countries now participating in offshore manufacturing for the U.S. market, Mexico is leading in terms of growth and absolute value added by overseas processing (Ibid.: 34). From 57 plants in 1966, the maquiladora industry has expanded to a total of approximately 1,300 plants in 1988, with about 250 new maquiladoras scheduled to open (Stoddard 1987: 24; Baker et

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[26] Since the 1982 peso devaluation, Mexico's wages are much more similar to those paid in Asian NICs (Baker et al. 1988a: 49).

al. 1988a: 48-9). [27] A 1981 study concluded that U.S. companies control 90 percent of all maquila operations in Mexico (Grunwald and Flamm 1985: 149-50). However, non-U.S. multinational interest is growing. Japanese, Korean and European corporations have opened plants in 1988, and the Japanese have about 100 more planned (Baker et al. 1988a: 49; The Fifth Estate 1988: 1). Mexican capital is still somewhat limited and concentrated in the interior. In 1978, there was substantial indigenous capital in half the maquiladoras located in the interior, and Mexican capital is also involved in border industrial parks designed for maquiladoras. Most indigenous capital however, is tied up in assembly plants which subcontract for foreign enterprises, particularly apparel industries (Grunwald and Flamm 1985: 150).

The BIP then, has become an important component of not only the northern border economy, but for the whole of Mexico. Although there has been some expansion of maquiladoras into the interior, it is still the northern cities which host the majority of assembly factories. The economy of Juarez, a city in the north, has been transformed by the introduction and growth of the maquiladora industry.

The Maquiladoras in Ciudad Juarez

Ciudad Juarez, located half way between the Pacific and the Gulf of Mexico, and across from El Paso, Texas, has been described as the "shining success story" of the BIP (Van Waas 1981). Prior to the establishment of the BIP, Juarez was a border town with a traditional economy based on small-scale processing of cattle and agricultural goods, and

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[27] Although legally, maquiladora plants can be situated throughout the country, in 1979 only 10,7 percent of the total were situated in the interior. The majority are concentrated in the five northern cities of Tijuana, Mexicali, Ciudad Juarez, Nuevo Laredo, and Matamoros (Seligson and Williams 1981: 149, Dillman 1983b: 146).

specializations in a seamy side of tourism from the U.S.: gambling, prostitution, and quickie divorces (Van Waas 1981: 116).

Since the early 1960's and the arrival of the maquila industry, it has grown to become a metropolis of about 1.2 million people, with the highest per capita income of any urban center in Mexico other than Mexico City (Garcia 1982: 26; Sanders 1986: 1; Baker et al. 1988a: 49; Stoddard 1987: 13). In 1988, Juarez was home to 250 maquiladoras, which were spread out through four major industrial parks (Van Waas 1981: 122). These factories employed an estimated 110.000 people, which represented approximately one third of the total maquiladora work force in Mexico (Baker et al. 1988a: 49-50). Women made up an estimated 75 - 85 percent of these maquila employees (Fernandez-Kelly 1983a: 71; Van Waas 1981: 197; Seligson and Williams 1981: 25-7). [28]

The growth of Juarez's maquiladora industry is largely the result of investment from two types of assembly industries, electronics and apparel. Sixty percent of Juarez's assembly factories specialize in electric and electronic components, while 30 percent are dedicated to apparel assembly. The rest are involved in the manufacture of toys, asbestos yarn, ornamental products, and coupon sorting (Fernandez-Kelly 1983a: 4, 48). The two dominant industries are examples of the light and competitive industries, described in chapter one, which have found it necessary to take advantage of free-trade zones in developing countries. They are also the industries which have hired a large number of Mexican women as workers. Examining their employment practices in Juarez will lay the groundwork for understanding why women have predominated as

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[28] Some argue that Juarez has reached its maquiladora saturation point, and is experiencing chronic shortages of electricity, water, roads and even skilled labour (Baker et al. 1988a: 49). Their numbers however, keep on increasing.

maquila employees.

Electronic and Apparel Industries:

Electronic and apparel manufacturing industries share structural similarities in the international market which make them ideal candidates for offshore assembly. [29] As "light", competitive industries, they exhibit the following two features. Both industries occupy a vulnerable position in the international market because of changes in the demand for their products. New advances in technology quickly render electronic products obsolete, and fashions change seasonally. This need to rapidly change designs necessitates low operation costs in order to remain competitive on the international market (Fernandez-Kelly 1983a: 102). The second feature shared by both industry types is a high capacity for labour absorption, as a result of labour-intensive production processes, which do not lend themselves, technically or economically, to automated technology (Ibid.: 104). [30]

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[29] Not all types of industries are qualified to transfer their production operations abroad. In the U.S., political and legislative restrictions, and tariff barriers prevent certain capital-intensive, monopolistic, "heavy" industries from exporting manufacturing processes (Fernandez-Kelly nd.: 20).

[30] For the electronic industry, manufactures believe that rapid changes in the market render automation of product lines uneconomical. Manual labour is preferred because of the "smaller yield losses.., and the fact that manual workers can be retrained whereas rapid technological change can make automated equipment obsolescent in a few months" (Lim 1981: 182, Frobel et al. 1980: 335). Within the apparel industry, highly mechanized equipment is being incorporated in the U.S. based centralized service unit (CSU) where cloth is cut and prepared prior to sewing, and finished and distributed after assembly. However, production technology in offshore sewing operations has not changed significantly, because of the complexity of the sewing operation, and the continually changing sizes, shapes, and fabrics of garments (Van Waas 1981: 72-5).

Despite these structural similarities, it is possible to differentiate between the two types of industries. The majority of electronics factories operating in Juarez are direct subsidiaries of U.S. parent firms. The majority of garment manufacturing businesses are small Mexican-owned enterprises with subcontracts from large U.S. companies (Ibid.: 104; Stoddard 1987: 25). These differences indicate various levels of capital investment, and differing employment policies.

Subsidiary electronic factories in Ciudad Juarez are characteristically located in modern industrial parks. Managements have generally committed part of their investments to the training of middle-level personnel, the improvement of the skills of some of their workers and the promotion of the BIP. Workers consider employment in this sector highly desirable, though it is considered difficult to be hired for a job because of the highly selective employment policies utilized (Fernandez-Kelly 1983a: 105-6).

Apparel manufacturing plants, in contrast, are smaller, have less capital investment, and are often housed in older, renovated buildings with inadequate heating and cooling systems. Jobs in apparel factories are considered less attractive from the workers' point of view than those in electronic plants, given that "working conditions [are] inadequate, equipment old-fashioned, labor requirements arbitrary and comparatively more rigorous, demands on productivity steep, and abuses not infrequent" (Ibid.: 107). However, the combination of high turnover rates and the need of companies to maintain a flexible work force, make it comparatively easy for Mexicans with a weak position in the local labour market to obtain employment.

Although some employment practices are standardized by Mexican government policy, there are variations between the two types of assembly factories in Juarez. There are two standard recruitment techniques used by the two types of

factories. The most common method is to advertise job openings only to current employees, asking their help to fill them. The workers then recommend relatives and friends for the vacant positions. The advantages for management of this method include minimized recruitment costs, and a more "controllable" work force, as the "recommender" is frequently held partially responsible for the new employee's behaviour and productivity (ILO 1985: 38; Van Waas 1981: 206-7). In addition, workers who acquire jobs through personal recommendation, feel a personal debt to the individual or personnel manager who hired them. These feelings can be utilized by the hiring individual to exert control or to demand special services (Fernandez-Kelly 1983a: 111). This method of recruitment seems to predominate in the electronics sector, which, given its greater capital investment, prefers to keep a tight control over the workers hired.

The alternative recruitment strategy is to advertise in the mass media. The advantage of this method is that management accesses a much larger pool of potential labour. The disadvantage is that the majority of people seeking employment this way are not part of tightly woven informal networks, and background information is difficult to obtain (Ibid.: 11; Van Waas 1981: 207). This strategy tends to be used more in the apparel industry, which with its poorer working conditions and lower levels of capital investment, is in less of a position to be highly selective about the workers that are hired (Fernandez-Kelly 1983a: 112). This method is also utilized by companies which are newly setting up, and during periods of labour shortage (ILO 1985: 39).

These recruitment strategies reflect companies' hiring policies. Electronic plants have very selective criteria by which they choose their assembly workers. It is preferred that applicants have no less than 6 years of formal education, be young - between 17 to 25 years - and be single

and childless (Fernandez-Kelly 1983a: 4). [31] Many factories also require that workers be available for day and night shift work, and be able to document a minimal residency in the city of one to two years, so that they do not "take the money and run" after a brief period of employment (Van Waas 1981: 207). [32] Background checks are a standard practice of these establishments to ensure the accuracy of applicants' statements (Ibid.: 207). Before being hired, potential employees are required to take manual dexterity tests, and in the case of women applicants a medical examination to determine if they are pregnant, so that companies are spared paying maternity benefits (Fernandez-Kelly 1983a: 105; Fernandez-Kelly 1983d: 31).

In sum, these criteria ensure that the majority of workers hired by electronics plants are well educated by Mexican standards, young and energetic, stable, flexible, and unencumbered by domestic responsibilities. Eighty to 85 percent of the time, these workers are female. Although some factories do place gender-specific job advertisements, the majority do not (Catanzarite and Strober 1989: 21).

The hiring practices of the apparel industry are quite different. Although managers of locally owned apparel firms claim that they would prefer to recruit the calibre of employees that electronics multinationals do, the inferior working conditions of apparel factories do not attract such prospective workers, and they are left to select employees from those women who do not qualify for work in electronics factories (Tiano 1986c: 85). These establishments then, tend to employ workers who are older, are recent migrants,

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[31] Factory managers believe that high levels of formal education enable workers to be trained easily in a short period of time (Fernandez-Kelly 1983a: 52).

[32] The demand for shift work discourages the application of, and participation of women with full time domestic responsibilities.

and who have a weaker position in the local labour market. The majority of these workers are women who have returned to the workforce after years of domestic responsibilities, and single mothers who must support children. However, younger women who do not meet the stringent demands required by the larger foreign maquilas, are also found working in the apparel industry (Fernandez-Kelly 1983a: 51, 106).

According to 1981 data, Mexico has no effective laws on sexual discrimination in the workplace, and U.S. multinationals are not subject to U.S. restrictions in this area when operating abroad (Van Waas 1981: 347). As a result of this freedom, a strict sexual division of labour has been established in Juarez maquiladoras. "It is the women who do the 'light' work of assembly or sewing, men who do the 'heavy' work of warehousing, material movement, maintenance, and running heavy presses, and the technical jobs such as machinery repair and engineering" (Van Waas 1981: 347; cf. Pearson 1986: 82, Dillman 1983b: 149). Although there are some female line supervisors in the apparel industry, and female group chiefs in the electronics industry, in both industries, technical, engineering, and administrative jobs are the monopoly of men (Ibid.: 348). Pena found that a typical electronics maquila has 12 basic shop floor positions, the highest being departmental superintendent, the lowest being assembly line operators. Within these positions, he discovered that all female workers were at or below the quality control inspector position (position 8 in the hierarchy), and that males are

the only ones in the top 7 positions (1983: 421). [33] Pena found that the group chief position (number 9) was predominantly held by women (60%), while the first line supervisor position, the next up in authority, was normally held by a male. This relationship, he concluded, functioned in such a way as to avoid conflict between majority female unskilled labourers and the male management, which would in turn underline internal divisions on the basis of sex, and the differentiation of power on the basis of sex (Ibid.: 423). Pena writes,

> By exerting pressures on a group-chief to conform to the male-dominated supervisory system, first-line supervisors extract control over the assembly line operators without resorting to direct contact with them...This patriarchal system of indirect control results in two major dynamics: (1) It reduces the degree of "vertical" conflict, that is, direct conflict between line operators and male management. (2) It increases the degree of "lateral" conflict, that is between line operators and group-chiefs. In a word, group-chiefs occupy a "buffer space" between female line workers and male first-line supervisors (1986: 140-1). [34]

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[33]

Job Position.	% Female	% Male
departmental superintendent	0	100
production engineer	0	100
quality control supervisor	0	100
mechanical supervisor	0	100
first-line supervisor	0	100
lab technician	0	100
mechanic	0	100
quality control inspector	20	80
group-chief supervisor	60	40
technical operator	50	50
soldering operator	100	0
assembly operator	80-95	5-20

Source: (Pena 1983: 422) Based on 11 Juarez electronic operations.

[34] A similar situation occurs in North American factories which hire large numbers of immigrants. The utilization of foremen or forewomen who are of employee ethnicity functions to reduce contact and conflict between

Pena and Van Waas both concluded that the sexual division of labour established and maintained in Juarez maquiladoras, specifically female workers and male management, reproduces the traditional pattern of female/male relations in Mexican culture, and as such functions as a form of control (1983: 424; 1981: 348). This may be part of the answer to the question of why women predominate as assembly workers.

There is very limited mobility for workers in maquila factories, and little chance for increased earnings and technical advancement. Since they are only "assembly" facilities, approximately 87 percent of the jobs are for operatives, and there is therefore a short ladder for job promotions. The rigid sexual hierarchy in the plants generally ensures that the few managerial, technical and supervisory jobs available, are occupied by men. Horizontal mobility among firms in the same industry is severely restricted because of an inter-maquila blacklist, and an anti-piracy policy maintained by factories (Lim 1981: 187; Van Waas 1981: 349; Pearson 1986: 82).

Mexican legislation determines factors such as legal work week, wages, contracts and severance pay. The standard work week in both types of factories is 48 hours (Sanders 1986: 4; Pena 1983: 376). According to Mexican law, all factory workers in Juarez, regardless of industry type or gender, who work at jobs defined as "unskilled," are paid the same minimum wage. [35] Thus men and women employed at

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"white" supervisors and management, and "non-white" workers.

[35] There is an "anti-piracy" agreement amongst foreign-owned and Mexican maquiladora managers not to compete for workers by offering wages above the legislated minimum wage. This is not only to keep wages low, but to avoid paying marginal tax rates on wages above the minimum (Catanzarite and Strober 1989: 11-12, Van Waas 1981: 260).

According to Van Waas, the evasion of minimum wage payment

the same level assembly job receive the same wage. This minimum wage is considered a wage floor, and in 1988, $3-5 U.S. a day was considered an average (Baker et al. 1988a: 49). [36] Maquiladoras are also required by Mexican law to register their employees in the National Security System, and the National Housing Program (Fernandez-Kelly 1983a: 123; Sanders 1986: 4-5). As a result of these requirements, the total company investment per work hour rises. In 1988 it was approximately 81 cents U.S. per worker, per hour (Baker et al. 1988b: 102).

Under Mexican law, labour contracts are by default permanent. Temporary contracts are permitted for determined periods of time and labour. Under temporary contracts, no severance pay is owed to the worker. Temporary contracts may be renewed, but its "temporary" nature must be justified. After the first renewal, the workers' contract is assumed to be permanent. Contracts are also assumed to be permanent after 30 days on the job (Van Waas 1981: 236-7). The issue of severance pay is closely linked to that of contracts. Mexican law stipulates that workers under permanent contract are entitled to severance pay if laid off by the employer for other than a few reasons. [37] This means that layoffs of permanent employees are extremely expensive (Ibid.: 236).

Because of the high costs to lay off permanent

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is common in a number of smaller maquilas, but not frequent in larger multinationals, who have too large a political profile and workforce to succeed at such a practice (1981: 237).

[36] This minimum wage is not considered a living wage, as it has not kept up with the inflation rate which has occurred since the 1982 peso devaluation.

[37] Severance pay includes a basic payment of three months wages, plus a seniority premium equal to 12 days pay per year worked, plus 20 days pay per year worked for damages to the worker for the loss of his/her job (Van Waas 1981: 236).

employees, maquiladoras utilize a dual system of temporary contracts and forced resignations to cut costs. In his 1980 study of Juarez, Carrillo found that 8.2 percent of his 474 person sample had not signed contracts, and 41 percent had temporary contracts (in Pena 1983: 70). These temporary contracts function to prevent workers from acquiring seniority, and thus earning wage increases (Fernandez-Kelly 1983d: 31). With regards to severance pay, Van Waas argues that forced resignations appear to be a standard operating procedure in Juarez. He writes, "managers quite openly admitted their power to force such "voluntary" departures through techniques [such] as frequent changes in job assignments, frequent shift rotations, and general harassment by superiors" (1981: 219). One manager stated, "You can get any turnover rate you want here" (Ibid.: 22). Companies also force negotiations with laid off workers about the percentage of severance pay they will be paid. The average worker received one-third to one-half the full legal amount (Ibid.: 262).

The use of temporary contracts and forced resignations seems to be a standard practice in both types of factories. Though it is seems probable that these manoeuvers are more frequently utilized in electronic factories, which, because of their higher profile, need to use legal loopholes, rather than outright abuses of the law, to cut costs. With these tactics. they are able to get rid of workers no longer hitting quotas, and maintain a younger and more productive work force (Van Waas 1981: 263). These operating practices are however extremely stressful for workers. One electronics assembler confided in Fernandez-Kelly, "Every three months, the personnel manager calls some of us into his office and he asks us to sign resignation sheets. I always sign immediately, because I want to stay out of trouble. The next morning he rehires me for another three months. I'm a nervous wreck, I never know when my

resignation will be final!" (1983a: 161).

In sum, employment in maquiladoras is highly unstable for a large percentage of workers, and worker turnover is high. Some plants record a 100 percent turnover a year, but the average is approximately 2-3 percent per month (Van Waas 1981: 218). These methods of worker exploitation and manipulation are largely permitted because of the virtual lack of labour unions in Juarez. Juarez, according to Van Waas, is union weak, with open inter-union battles over plant contracts (1981: 272). Decisions in favour of unionization are determined by the "needs and preferences of the firm rather than the requirements of workers themselves" (Fernandez-Kelly 1983a: 145). Fernandez-Kelly concluded from her research that the number of workers a company employed was a deciding factor. She found that smaller firms were less likely to unionize, fearing the unions would generate conflicts between workers and management, whereas larger maquiladoras were more likely to utilize unions as a tool in labour-management interactions (Ibid.: 145). [38]

The provision of non-wage benefits varies according to industry ownership. In Mexican-owned plants, benefits are either rare or non-existent. However, in multinational plants worker benefits are considered a priority. Stoddard claims American maquiladora owners budget 110 percent of worker minimum wage to provide benefits such as cafeteria and transportation subsidies, medical and savings plans, and an assortment of company-sponsored social events (1987: 43-5). Non-wage benefits are the means by which companies compete for top quality employees, given their agreement not to compete with wages (Catanzarite and Strober 1989: 12).

To recapitulate, two competitive light industries have come to dominate maquiladora production in Juarez. These

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[38] The implications of gender and unions will be discussed in chapter four.

industries, however, differ significantly in their levels of capital investment, and this affects both hiring practices and employment policies. Both industries maintain a strict sexual division of labour which replicates patterns of male authority found in Mexican culture. Women make up the majority of unskilled workers, and men occupy the majority if not totality of skilled jobs and management positions.

We will argue that women did not randomly become the majority of unskilled assembly workers, and men did not randomly come to monopolize management positions. Additionally, electronics maquiladoras did not randomly end up with a young, educated etc. workforce, nor did apparel randomly end up with an older, responsibility-encumbered one. Deliberate selection processes are at work on the part of both management and workers: managers in terms of who they hire, given their perceptions about who makes the best assembly workers in the context of the economics of off-shore production in Mexico, and workers in terms of where they apply, given their perceptions of the differing qualities of employment in the two factory types.

Chapter Four.

Management Demand for Female Assembly Employees.

In this chapter, we will look at the demand-side factors which have determined **who** has been hired by both multinational and Mexican subcontracting companies. We will examine how managers emphasize gender traits or characteristics attributed specifically to men and women as a means of explaining or rationalizing the hiring of a specific gender for certain jobs. It is important to keep in mind that gender traits may not be actual, but perceived, without any real basis for difference between men and women (Beneria and Roldan 1987: 50). Beneria and Roldan write,

> In a hierarchical labor process...criteria need to be designed to assign workers to different echelons of the labor structure....[The]...use of gender...is viewed as discriminatory unless accompanied by some form of rationalization. This is the function that the use of gender traits can play; i.e., they provide a basis for this rationalization by suggesting an association, even if a socially constructed one, between specific jobs and the skills attributed to men and women (1987: 53).

There are essentially four types of management explanations about why women have been preferred over men for assembly work. Each argument will be presented, and then critically evaluated. [39]

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[39] Arguments about managers preferring women do not apply to other Mexican industries such as the oil or automobile industries which hire men. Information about why women are not also preferred in such "heavy" industries is limited and unsatisfactory. The ILO suggests that women are not selected because they do not have the physical strength required for many jobs in this sector, and because the industries in question have traditionally been dominated by males (1985: 28-9). We could hypothesize that jobs in heavy industries, which are generally better paid and more stable than those in light industries, have been monopolized by men because they are the culturally legitimate breadwinners who require a "family wage", and, because men are considered to be serious, committed, long-term employees. This is an

1) A Universal Practice:

Although there are some companies which insist that there is no sex bias in their hiring policy, and that "it [their sex ratios] just turned out that way", most managers, 80 percent in one study, when asked why women make up the majority of assembly workers answered "that's the way its always done in assembly plants" (Van Waas 1981: 349 [footnote 435]). Catanzarite and Strober were told by spokespersons in electronic plants that "they had come in [to Mexico] with the plan to hire young women because the parent companies employed young women for the same types of jobs in the Far East or in the home country" (1989: 13). It is not clear whether Mexican-owned assembly plants hire women on their own initiative, or if they are responding to the demands or employment practices of contracting industries in the United States. Stoddard claims (refer to chapter three) that unequal sex ratios among workers are not a recent border phenomenon created by maquiladoras, and that gender-specific work has existed in the border region since the early 1900's (1987: 58). Although it is possible that Mexican managers are simply continuing employment trends started by early Mexican and U.S. businesses, it is more probable that they have hired women for the same economic and political "reasons" that foreign-run factories have.

Critique:

There exists in the literature a debate about whether Mexican maquiladoras hire the equivalent, or a higher

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important consideration for heavy industries which have high levels of capital investment, and cannot afford to turn machinery off because of employee absence. These are, however, tentative conclusions. More research about the implications of gender in "heavy" industries must be conducted to better understand how women are evaluated by the different industry types.

proportion of women on assembly lines, to factories in the United States. Stoddard writes, "Taking a functional view...it is reasonable to assume that when companies export jobs from U.S. factories which are mainly filled with females, these would likely be filled by female employees in the new "offshore" location" (1987: 60). He argues that similar assembly or production plants within the United States have an average of 90 percent female assembly workers (Ibid.: 60). The UNIDO concurs with this statement, writing that women form over 90 percent of all production workers in U.S. electronic and apparel industries (1980: 5).

In contrast, Van Waas argues that apart from the apparel industry, companies in Mexican free trade zones use more women workers, proportionally to men, than do equivalent operations in the United States (1981: 199). The ILO (1985: 29) has similar findings, as does Green, who claims that in 1978, 76.4 percent of electronic operatives in the United States were women (1983: 284). Statistics on Canadian industries show that in 1982 women made up 81.2 percent of clothing manufacturing employees, and 47.8 percent of employees producing electrical products (North-South Institute 1985: 24). These figures are lower than those for comparable industries in Mexico.

In sum, the data are not clear. There seems to be some evidence than Mexican maquiladoras do hire proportionately more women than do operations in the United States. This may simply be a reflection of the nature of the unskilled, labour-intensive production tasks which are exported to free-trade zone factories. These tasks are undertaken to a large degree by women in factories all over the world, and as such have acquired the label "women's work". However, even if it is true that maquiladora management is following what it perceives is a universal hiring practice, we still do not know why women are preferentially hired as assembly workers. As Humphrey says, "the fact that the work is

unskilled does not explain why women are found performing it to such a disproportionate extent" (1987: 141).

2) Physical Suitability:

The majority of managers, at both foreign and domestic enterprises, back up their statements about the universality of hiring women to fill assembly positions, with an explanation of women's "natural" superior physical suitability (Van Waas 1981: 349; UNIDO 1980: 14; Pacific Research 1980: 14). Stoddard found that plant managers and top-level administrators in both American and Mexican plants believed that "females are born inherently superior to men in tactile dexterity" (1987: 59). A personnel manager, when asked why women made up 90 percent of his factory's workers, explained to Fernandez-Kelly "We hire mostly women because they...have finer fingers, smaller muscles and unsurpassed manual dexterity" (1983a: 181).

It has also been argued that young women are more suited to detailed assembly work, because of their higher percentage of body fat which enables them to sit for long periods of time with less discomfort than men (UNIDO 1980: 14; Fernandez-Kelly 1983d: 32; Anderson 1984: 87).

The literature then, indicates that there exist widespread preconceptions about women's "feminine" attributes. Management in both American and Mexican factories clearly believe that women possess "natural" physical abilities which make them more productive than men in routine assembly work (Humphrey 1987: 141; UNIDO 1981: 23; Tiano 1984: 17).

Critique:

Critics of management argue that the physical traits which supposedly make women superior assembly workers are not natural at all, but cultural, and acquired through women's social experiences (Young 1984: 394; The North-

South Institute 1985: 12).

Elson and Pearson stress that female dexterity is not a natural female quality, but the result of the social construction of gender, and the differentiated "training" that women and men receive (1980: 15). Food processing and needlework such as sewing, weaving, and embroidery are "feminine" activities which ensure that manual dexterity and hand-eye co-ordination are passed on to successive generations of women (ILO 1985: 30; Beneria and Roldan 1987: 51).

The ability of women to sit for long periods of time is not, critics argue, a function of their greater fat ratios on their lower extremities. Beneria and Roldan explain that housekeeping activities which are tedious and repetitive, and are often in poor households done in crowded spaces, require discipline, commitment, persistence and the ability to deal with frustration. This they explain, conditions women to be less restless than men, and therefore enables them to sit for long periods of time (1987: 51).

Elson and Pearson argue that maquiladora managers are likely to see these traits as "natural", and the jobs that make use of these abilities "unskilled" or "semi-skilled," because like so many other female activities coming under the heading of "domestic labour", they are socially invisible and privatized (1980: 15). Elson writes, "Employers find girls quick to achieve proficiency because they are already trained in the art of manual dexterity. But because this training hasn't cost employers anything, it tends to go unrecognized. It is attributed to nature - and it's not reflected in any higher pay" (1983: 6-7).

The Cultural Construction of Productivity:

Researchers such as Van Waas and Anderson have questioned whether there are in fact empirical differences in dexterity and thus productivity, between men and women.

Van Waas explains that prior to 1970, Mexican labour law prohibited the employment of women on night shifts. Maquila managers interviewed by Van Waas who were involved in production at that time, reported little or no quantitative difference in the productivity of male and female line workers (1981: 200, 350). Anderson conducted a study of 36 electronic and 20 apparel maquiladoras in Mexicali and Tijuana. From her findings she concluded that the proportion of women in the firm's work force had no significant impact on its efficiency or productivity (1984: 92). How can we explain these seemingly contradictory findings ? On the one hand management clearly believes women have superior manual dexterity, and studies have shown that women do score higher on dexterity tests given by factories when hiring (Stoddard 1987). [40] On the other hand, there is evidence that in the actual production situation, there is little difference between the productivity of male and female assembly workers (Grunwald and Flamm 1985: 167).

Lim and Humphrey have suggested that the nature of "productivity" itself must be examined. In her studies of free-trade zone factories in Singapore and Malaysia, Lim found that women workers were considered better than male workers not because they worked any faster, but because the work they produced was of a higher quality. She suggested that this was not the result of better manual dexterity, but greater care and patience, and attention to detail, perhaps conditioned by domestic training such as needlework (1978: 23).

In his examination of Brazilian factories, Humphrey has questioned why men in general do not display as much care, patience and attention in assembly tasks as do women. He

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[40] Stoddard has questioned whether the tests are designed to suite smaller female fingers (1987: 59).

hypothesizes that this difference is related to the perceptions that men and women have of the jobs in particular, and the careers they involve. Men he suggests, lack care for assembly work partly because of the nature of the work, which is repetitive and offers no room for initiative, and because of the definition of the work as "female", which means it has low status and wages, and a lack of promotional opportunities (1987: 141-2). Humphrey also links differences in attention to quality between the genders to the varying degrees of supervision and controls that men and women will accept. He argues that male workers are generally more resistant than female to the levels of supervision and control required to maintain high productivity on assembly lines. He writes, "male workers present a number of problems for management when performing ...routine work. The quality of production would be relatively low, there would be resistance to close supervision, and turnover rates would be high, because workers would leave in search of better jobs" (Ibid.: 143).

In short, Humphry's study suggests that management evaluates productivity not simply in terms of numerical output, but in terms of consistent quality, and the manageability of workers.

The research of Lim and Humphrey sheds light on the seemingly contradictory situation in Juarez. Perhaps Mexican women are prized by maquiladora management not so much for their manual dexterity which results in superior numerical productivity compared to men, but because of the increased care and attention they pay to assembly tasks. This ability to pay attention to detail may be a result of the social training women received in domestic tasks, but there are additional underlying economic reasons we have yet to look at.

3) Psychological Suitability:

In addition to the physical characteristics mentioned above, maquila administrators also make references to women's personalities and attitudes, which are seen as well suited to assembly work. The two most highly prized qualities are women's supposed docility and patience (Fernandez-Kelly 1983a: 181; Tiano 1984: 17). Managers claim that women are "naturally more docile and willing to accept tough work discipline, ...and naturally more suited to tedious, repetitious, monotonous work" (Elson and Pearson 1980: 14). One manager explained to Fernandez-Kelly, "We know that in all cultures...women ...don't tire of the same, monotonous operation...are patient...and are highly productive" (in Pena 1981: A-62). Another claimed that "Girls are hired because they are 'easy to control', 'pleasant', 'nice' and 'cooperative'" (UNIDO 1980: 15).

Mexico's male-dominated "macho" culture was frequently given as the reason for the comparative ease of supervising women compared to men. One manager said that machismo "made the maquila the easiest plant I've ever run" (Van Waas 1981: 351). Another, in an extreme example, explained that Mexican women "were used to being supervised, and supervised hard...They're more comfortable [than men] with exact rules and swift and brutal punishment for violations" (Ibid.: 351). Although some plant managers in Van Waas's study did not perceive any difference between Mexican maquila workers and assembly workers in other countries, the majority found them to be easily disciplined, and inclined to develop a spirit of loyalty and respect towards the company similar to that which they have for their families (Ibid.: 351-2).

Explanations of why men are not considered the most appropriate gender for assembly work fall into the realm of male psychological/personality traits which are not compatible with the demands and nature of factory assembly work. One electronics plant manager in Juarez explained

that men make much more troublesome employees. "The man in Mexico is still the man. This kind of job is not doing much for his macho image. It's just a little quirk of a different culture" (Fernandez-Kelly 1983d: 30). Some other examples are, "Young male workers are too restless and impatient to do monotonous work with no career value. If displeased, they sabotage the machines and even threaten the foreman. But girls? At most, they cry a little" (Ehrenreich and Fuentes 1981: 55). "Male workers ...[are] insubordinate and restless, unable to sit still for eight hours a day doing one boring repetitive task. Men tend to be troublemakers while women are obedient" (Ibid.: 56). What these managers claim then, is that women enjoy doing the very jobs that drive men to assaults and sabotage. To quote one factory manager, "the girls like this routine work because it is not mentally demanding" (Ibid.: 56).

Although there seem to be some managers who think that docility and patience are innate, natural characteristics of women, the majority of administrators in both American and Mexican plants believe that these female "characteristics" are the result of differing socialization processes for females and males in Mexico, where women are taught to be more passive, docile and obedient to authority than men, and hire with this in mind.

Critique:

Researchers such as Tiano (1987), Elson and Pearson (1980), Joekes (1985) and Humphrey (1985, 1987) question the stereotype that Mexican women who work in assembly factories are patient, docile and submissive to the needs of capital. They acknowledge that women are socialized to play a subordinate role in domestic and public situations, and that Mexican culture requires them to be deferential and obedient to male commands. They also recognize that women's youth and lack of experience in the work force, particularly for

those employed in the electronics sector, reinforces this socialization, making many women hesitant to resist factory policies (Joekes 1985: 189-90; Pearson 1986: 82). They argue, however, that women's experience working in maquiladoras, enduring harsh working conditions and discriminatory factory policies, undermines this socialization process.

Elson and Pearson suggest that the appearance of docility women present to management is more of a "facade", or a "mirage", than a reality. They write, "In the conditions of their subordination as a gender, this is the appearance that women often present to men, particularly men in some definite relation of authority to them, such as father, husband, boss" (1980: 19-20). This is not perceived as a natural state, but one which requires the self-repression of inner rebellion and subversion. Elson and Pearson claim that the modes of resistance, both informal and formal, that women take, and managements' elaborate efforts to impose strict control over women, are evidence of this process (Ibid.: 20).

The informal modes of resistance female assembly workers have implemented range from mocking and ridiculing supervisors behind their backs, sabotaging conveyor belts or components and tools in order to slow down the work process, and output restrictions and verbal threats against rate busters during time & motion studies and production speed-ups (Elson and Pearson 1980: 20; Pena 1983: 302, 424; Pena 1986: 144). More formal resistances have included wildcat sitdowns and walkouts, and plant-closing strikes (Pena 1983: 29; Young 1986b: 111; Elson and Pearson 1980: 20).

Critics argue that the range of techniques maquiladora managers utilize to control female assembly workers illustrates how unwilling they are to trust completely in the "natural" or even socially conditioned docility of women. The rigid sexual division of labour in the factory,

which replicates patterns of male dominance in working class Mexican society, is seen as a key strategy for keeping women in line (Pearson 1986: 82-3; Pena 1983). Company hosted events such as beauty contests, and sewing and makeup courses are seen as deliberate attempts to emphasize the women's "femininity" and accepted feminine characteristics (Ibid.: 83). Other management techniques to maintain productivity include, the placement of a scattering of men on positions along assembly lines, supposedly to make the women "better behaved" as they compete to impress the men (Van Waas 1981: 356), and line and workshift reassignments to break up workers' networks carrying out resistance planning and activities (Pena 1986: 142-3).

Women then, it is asserted, are not all docile, defenseless and unorganized, but in many cases are highly capable of impeding management's efforts to increase production quotas. Maquiladora administrative personnel are well aware of women's informal tactics, and have devised techniques to counteract their effectiveness. If women are not docile, what then do maquila managers mean when they say that they are ?

Humphrey has suggested that we look at the "docility" of women compared to the "non-docility" of men. From his study of factories in Brazil he concluded that women appear more "docile" to management than men because 1) they are more willing to tolerate assembly working conditions over long periods of time, and, 2) are less likely to strongly resist supervision and controls. Humphrey attributed this first difference to the differential skills and work experience men and women have, and the different labour market conditions and alternatives available to them (1987: 135). With regard to the second difference, Humphrey found that males perceived close supervision and controls as an attack on their masculinity, and often responded with verbal and physical rebuffs. Women on the other hand, it was

argued, tolerated such supervision because they thought they were unlikely to find alternative employment which did not involve such intrusive control (1987: 136).

In summary, Humphrey concluded that women's "docility" was the result of the economic limitations they experience as women in the labour market. He writes, "Although management may interpret the results of these factors as a 'preference' for monotonous work...it might more accurately be considered as women's only realistic alternative" (Ibid.: 143).

Humphrey's work in Brazil suggests possible answers to the "docility" question in Juarez. Perhaps maquiladora managers' statements about female docility and patience are based not so much on a fantasy of women's unquestioning obedience, given the reality of women's informal and formal resistances, but on a comparative basis with men, and refer to economic rather than psychological conditions. Management prefer to hire women as assembly workers because they require a workforce which will be highly productive and manageable, in other words, "docile". Women satisfy these requirements because they have pressing financial obligations, and limited options. This is particularly true for female heads of households who make up a large percentage of apparel workers, and even single and married women who, because of the inability of their male kin to find work, are key income providers.

4) Secondary Labour Market Status:

In addition to the physical, social and cultural characteristics described above, factory administrators explain that Mexican women's weaker position in the labour market makes them more productive, cheaper and less likely to unionize than Mexican men. Productivity is believed to be higher for women, not only because of their supposed superior manual dexterity, but because of their gratefulness

at having, and fear of losing their job. One manager explained to Van Waas, "The workers are very grateful they do have a job and very very anxious to please management...You ask them to do something and they don't walk, they run" (1981: 215). A manager of a Juarez electronics plant noted that "women, particularly migrants, are easier to train, work harder and accept discipline more easily because of their awareness of high unemployment and the few job opportunities outside the maquilas" (Ibid.: 216). Managers realize then, that the combination of highly selective hiring criteria in a market of high unemployment, and the constant possibility of unemployment boosts worker productivity.

Many maquiladoras employ women on the grounds that they are not only more productive than men, but that they are cheaper to employ. The definition of cheapness in this instance has to be clarified, given that Mexican labour laws guarantee the same minimum wage for employees of either gender in the same category of unskilled jobs in the same region (Catanzarite and Strober 1989). Women are considered "cheaper" than men by factory managers because it is believed that they do not mind dead-end jobs, that they have limited career aspirations, and financial obligations. In other words, they are merely working to supplement the male breadwinner's wage, and earn a little extra money for personal luxuries, rather than supporting a family (UNIDO 1980: 17; Joekes 1985: 183; Lim 1981: 187). As such, maquila administrators feel justified in hiring women for assembly jobs which have no prospect for advancement, and excluding them from training for more skilled jobs with better promotion possibilities (UNIDO 1980: 17). They also feel no remorse in hiring women for short-term contracts, or laying them off in periods of economic decline, given that it is assumed that they will only work for a short time, and that their work is "an interest to get them out of the

house" (Ibid.: 17). Women are also considered cheaper than men by management because it is understood that many female employees, particularly young women in electronics plants, will eventually leave work to marry, have children, and attend to domestic responsibilities. This high turnover rate is financially beneficial to maquiladoras for a number of reasons. Firstly, workers who voluntarily resign are not eligible to receive severance pay, which as described in chapter 3, is a substantial cost for employers. Additionally, a high turn over rate enables plants to adjust to fluctuations in the business cycle, it save companies from having to pay seniority wages, and it maintains a constant influx of fresh workers to counteract declines in productivity, which tend to affect workers after their second year of work (Young 1984: 393; Fernandez-Kelly 1983a: 67-8). From the point of view of management then, women "form a reserve labor force that the maquiladoras can hire, rehire, or replace with relative ease" (Young 1984: 393). Short term contracts and forced resignations are simply additional methods utilized by factories to maintain cost effectiveness.

It is also understood that Mexican women's precarious position in the job market makes them less likely than men to unionize. Juarez is union-weak with only approximately one-third of assembly workers unionized. The decision to unionize or not has remained to date in the hands of company administrators, based on corporate needs rather than worker demands (Fernandez-Kelly 1983a: 145). Employing women, who are not in an economically secure enough position to push for union representation and changes, ensures that management maintains a tight control over workers and working conditions. Catanzarite and Strober were informed, "We...hire young women because...[they are] less likely to organize and press for better working conditions and wages" (1989: 13). Men, in contrast, have a marginally better

position in the labour market, and would therefore, it is believed, have more bargaining power to push for unions and improved working conditions (Fernandez-Kelly 1983b: 219).

Critique:

With regards to the concept of cheapness, maquiladora managers are criticized for their belief that they can pay women low wages because they only supplement household incomes. On the contrary, women need to work to ensure not only their own, but their families economic survival (Young 1986b: 108). Fernandez-Kelly writes, "the majority of women who work at Ciudad Juarez's maquiladoras ... enter the labor market as members of households for whose subsistence their wages are fundamental" (1983b: 217). Baerrsen concurs, "Loss of a woman's factory job can represent a serious financial blow to her family" (1971: 34). Women's need for stable employment is then not any less than that of men. However, managers' belief that it is, justifies their hiring and personnel policies.

From the point of view of business, women's status in the Juarez economy, and cultural ideas about the appropriateness and kind of employment suitable for women translate into a flexibility which is highly adaptive to the competitive market, and makes women more economical or cheaper to employ. For example, women are considered easier to lay off during recessions and market declines, because Mexican culture considers women's income as secondary, and their employment a temporary deviation from their domestic role and responsibilities (Ibid.: 393; Fernandez-Kelly 1983a: 67-8; Young 1986: 108).

Men, in contrast, are perceived by management as much less flexible, and much less willing to accept monotonous work with little career value (Ehrenreich and Fuentes 1983a: 13). Because it is believed that men are much more likely to stick with a job, push for promotions, and less likely to

leave voluntarily, they are considered less tractable, more expensive and therefore less suitable assembly workers (Catanzarite 1989: 14-15; Fernandez-Kelly 1983b: 219).

Managers have thus learned to take advantage of women's weak economic position because it is financially advantageous. Young explains, "Multinational corporations operating in the BIP do not themselves create conditions of low wages for women workers... They do however, exploit characteristics of Mexican women as workers, as well as the ...cultural characteristics of the region - such as...traditional values regarding women - to achieve their goals" (1984: 393). This treatment of women, by maquiladora managers, as supplemental workers who can be hired and fired according to company needs, both takes advantage of, and undermines their already weak market status, and reinforces outmoded concepts about women's need to work, despite the reality of their economic need (UNIDO 1980: 17). Pearson stresses that women's labour is not "naturally" cheaper, but that it has to be "constructed directly by the recruitment, selection, management and personnel policies of individual companies and indirectly by the intervention of the State, and negotiation within local and traditional modes of gender control" (1986: 93). From her research in Singapore and Malaysia, Lim writes, "it is patriarchal attitudes to women's work in both host societies and among...employers which justify both the payment of relatively low wages for women and lack of compunction in offering them unstable jobs with short tenure" (1981: 186). Ironically, it is these highly exploitable characteristics of women workers which have made them appear so attractive to maquiladora employers.

Managers' statements that women make more productive assembly workers than men suggest a linkage between women's need to work, the levels of supervision and control they are willing to tolerate, and managers' perceptions of them being

easier to control, more docile, and therefore more productive. We could hypothesize that given the weak labour market position of women in Juarez, female assembly workers would be willing to tolerate strict factory supervision and control to keep their jobs. Is it possible that women are considered more productive because they are willing to put up with management policies and techniques designed to increase productivity ?

With regards to management's statements about women being less likely to unionize than men because of their fears of losing their jobs, critics stress that although there is validity in this statement, and many women cannot afford to push for unionization for fear of losing their jobs, many women also choose not to participate in union drives because of their beliefs that unions in Juarez are corrupt, and do not consider the specific needs of women workers, such as child care. Van Waas writes, "Permeating all levels of the major unions in Mexico is the charro"- the corrupt, sold-out union leader...the majority of Mexican workers are nonplussed, if not actually hostile, to unions and union leadership" (1981: 108-9). With regards to gender, Fernandez-Kelly explains, "The fact is that unions in general have been reticent to include in their agenda issues that are particularly relevant to women...The fact that...most union leaders continue to be men, even in places where a large part of the work force is female, has contributed to deflate the potential for unionism in maquiladora plants" (1983a: 148). It is also possible that women who are juggling the double burden of domestic/childcare responsibilities and full-time employment, do not have the time or energy to participate in union meetings held after the workday. Women's low levels of unionization may therefore be related to their fears of losing their jobs, their perceptions about Juarez unions being corrupt and uninterested in the specific needs of

female workers, and time constraints.

These explanations all describe why administrators prefer women for assembly positions over men. They do not however, explain why young women are considered the most desirable labour force in both types of industries.

Young Women:

Both foreign and Mexican maquiladoras prefer to hire young, single, childless women (Tiano 86: 84-5). These preferred characteristics are illustrated by the following ad from a Mexican newspaper. "We need female workers; older than 17, younger than 30; single and without children: minimum education primary school, maximum education one year of preparatory school: available for all shifts" (Ehrenreich and Fuentes 1981: 55).
Managers give four basic reasons for their preference for young women.

Firstly, managers are convinced that single, childless women make better employees than married women with children. Tiano writes, "Domestic and childrearing responsibilities, employers believe, often interfere with optimal on-the-job performance. Lack of concentration, absenteeism, and frequent resignations, they told me, are common among wives and mothers, who put their family's welfare above their job-related responsibilities" (1986: 84).

Other managers insist that it is not so much women's youth, but their recent entrance into the job market which makes them so attractive. As "virgin" or unexperienced workers, these women, it is claimed, are easier to train because they have not acquired any previous set work habits (Ibid.: 84; Fernandez-Kelly 1983a: 117). They are also usually "untainted by past encounters with labor unions, and thus less likely than more mature workers to be 'troublemakers'" (Ibid.: 84). In other words, young women

are considered to make more docile, or malleable employees. As one personnel chief commented "the more seniority, the more non-conformity" (Carrillo 1980: A59).

Thirdly, it is believed that young women are even easier to train than older women because of their experience as young daughters in a subordinate position in the male-dominated households from which they come (UNIDO 1980: 16).

Lastly, the employment of young women is seen as cheaper than that of older women. The reproductive life cycles of young women, specifically the likelihood of their resigning from factory work to marry and/or raise children, neatly intersect with the corporate needs of most maquiladoras for flexible labour. In addition, young women with no prior experience do not command top salaries. As one manager explained, "When seniority rises, wages rise" (Ehrenreich and Fuentes 1983b: 6). Thus managers prefer to train a new group of young women, rather than pay higher wages to experienced women.

Critique:

Analysts agree with most of the explanations provided by management as to why young women are specifically selected as assemblers. Critics do suggest however, that there are advantages reaped by maquiladoras for hiring young women which managers have failed to mention. The ILO argues that by hiring young women factories secure employees who will have better health, eyesight and physical reflexes than on average older married women, factors which are important in both electronic and apparel industries (1985: 32). In addition, by hiring young women who are not pregnant when they commence work (ensured by pregnancy tests before hiring), but are likely to leave factory work voluntarily when starting their families, maquiladoras are exempted from paying both maternity benefits and severance pay (Ibid.: 32).

Joekes believes that young women's reproductive cycles play an important role in removing workers from the factory environment before their productivity begins to fail because of a work-related deterioration in their health (1985: 195). Others have argued that the use of young women enlarges the pool of available workers from which factories can draw (Van Waas 1981; 210, Ehrenreich and Fuentes 1983a: 28-9). Tiano writes,

> youthful women constitute the largest proportion of the industrial reserve army. Not only do they have the highest unemployment rates of all age-sex categories in the region, but they are most likely to enter the migration stream that continually replenishes the labor reserve. The excess of young female labor relative to their opportunities for paid employment creates a pool of potential maquiladora workers with few job alternatives (1984: 13). [41]

The preferential hiring of young women represents then, a deliberate effort by maquiladora management to select the category of worker who will offer business the most advantages.

Statements or explanations about young women's

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[41] Using 1979 data from the Encuestra Continua Sobre Ocupacion, Secretaria de Programacion y Presupuestra, Tiano compiled the following rates of open unemployment for the "Northern" region. The rates do not include the "discouraged worker", and are thus underestimates.

Age Cat.	Total	12-19	20-24	25-34	35-44	45-54	55-64
Men	3.50	8.27	5.68	2.59	1.33	2.67	2.32
Women	4.59	12.06	4.34	1.59	3.23	1.83	----

(Tiano 1984: Table 3)

Once again it is important to note that not all of these young women have the qualifications required to work in large foreign multirational factories. As recent migrants, and/or with limited education they will not be hired by most electronics plants. Those who are not accepted into the "desirable" maquilas end up working in domestic apparel factories, working as domestics, or in the informal sector etc..

dexterity, docility, and patience are simplifications, but not necessarily inaccurate. There exists evidence that such gender traits are real or true for a percentage of women. However, it can be argued that it is women's weak economic position which is responsible for the manifestation of these characteristics, either by reinforcing them in women where they were weak, or by creating the conditions for the appearance of them in women where they did not previously exist.

To summarize, it is difficult to determine to what extent cultural conditioning results in real or assumed gender traits in women. Therefore it is much more likely that economic factors, such as women's need to work, family responsibilities, and the labour climate in Juarez for both women and their male kin, are responsible for making women appear dexterous, docile and patient. This economic climate, although not created by the maquiladoras, is perpetuated by their hiring practices and overall system of management. For maquilas, by hiring women and placing them in "unskilled", unstable jobs, help to maintain the economic conditions partly responsible for the creation and maintenance of women's desirable gender "traits".

What critics emphasize is that the selection of employees in multinational and Mexican factories is not a haphazard affair, but a deliberate, well-calculated evaluation of the genders. Beneria and Roldan have called this an integration between ideological and material processes (1987: 52). They write, "men and women do not have an identical relationship to the means of production because gender has an impact on the conditions under which workers are incorporated into the labor process and these conditions, in turn, have an impact on gender" (Ibid.: 52).

Chapter Five.
Supply of Maquiladora Assembly Workers.

In the first part of this chapter, we will look at the cultural backgrounds of the women and men who work in the assembly factories of Ciudad Juarez. In particular, we will examine the sex/gender system which functions in working class Mexico, for clues to understanding how women and men enter the labour force as gendered individuals.

In the second part of this chapter, we will look at profiles of assembly workers in an effort to understand the economic and demographic details of electronic and apparel workers.

Section One: The Sex/Gender System.

The sex/gender system, in any culture, determines the ways in which biological sex becomes cultural gender. The system has been defined as a process which creates "sets of expectations, norms, and obligations for women and men concerning their behaviour and also their desires" (Rubin 1975 quoted in Humphrey 1987: 5). In a male-dominated society such as Mexico, the sex/gender system

> defines two contrasting types of life and behaviour for women and men and also defines the general tenor of relations between them....Individuals are forced into gender strait-jackets through the repression of 'unsuitable' traits, and the two categories are defined as opposites....It [the system] assigns primary parenting functions to women, limiting their access to activities outside the home while allowing men much greater scope for such activities. Much more than just a division of tasks, the sex/gender system establishes male control and power w thin the home and gives male activities greater value than female ones(Ibid: 5).

In addition to influencing control and power in the home, Sokoloff argues that the gender identities generated by the sex/gender system are an important part of the social

relations of male-dominated society and capitalism. She writes, "The... ideology surrounding the work women do is not simply a set of cultural beliefs attuned to the biological or social needs of men and women. Rather it is an ideology, a whole culture or a justificatory world view for patriarchal capitalism" (1980: 211). The gender identities generated by the sex/gender system are not ideological categories of gender-related expectations and behaviours, but are actually grounded in the material world of work in a male-dominated capitalist society. There thus exists an integration between ideological and material processes.

There are two explanations for the sex/gender system as it exists today in Mexico, one historical, the other cultural. The historical approach traces the origin of Mexican family patterns to the conquest of Mexico, and the subsequent sexual exploitation of Indian women by Spanish men (Paz 1961; Sanders 1976). We will examine the second explanation which analyzes Mexican male/female gender identities in the context of the cultural concepts of machismo and marianismo. [42] Both machismo and marianismo are considered New World phenomena with roots in old world cultures, in part imported from colonizing Europe, but interacting with indigenous beliefs and practices to form a new hybrid (Stevens 1973). Machismo can be defined as the cult of male virility which is characterized by "exaggerated aggressiveness and intransigence in male-to-male

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[42] The data on Mexican sex/gender systems is both antiquated and general. Studies tend to make sweeping generalizations about Mexican "men" and "women", without always specifying which class of society, or location ie.. urban or rural, they are focusing on. To the best of my knowledge, no study on the sex/gender system of working class Juarez exists. I have therefore been obliged to use those older studies which specify they refer to working class communities in Mexico to discuss gender identities in Juarez.

interpersonal relationships and arrogance and sexual aggression in male-to-female relationships" (Stevens 1973: 90). Marianismo, which is just as prevalent as machismo, is the cult of feminine spiritual superiority, which teaches that women are "semi-divine, morally superior to and spiritually stronger than men" (Ibid: 91).

By looking at patterns of early socialization, we can document how men and women learn the roles of machismo and marianismo respectively. The majority of employees in the maquiladoras of Juarez belong to what has been called the urban lower working class. [43] This categorization is important, for it is understood that the acquisition of gender traits, for both men and women, can vary within differing social classes (Beneria and Roldan 1987).

Both women and men learn about, and to an indeterminate extent internalize, gender identities, through the process of socialization in the home and society at large. From a young age, Mexican women learn to be submissive to the demands of men and their family needs, and to repress self-assertiveness. By caring for family members, particularly male, and the home, from childhood women learn to associate the domestic sphere as the center of female activities and resonsibilities (Penalosa 1968: 684-7).

Mothers are the most important role models in the lives of young women, and from them women learn of the religious and spiritual superiority of women, and the difference between "good" and "bad" women. "Good" women are those who are disinterested in, and/or dislike sex, and restrict their

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[43] A study by the United States Army concluded that "The urban lower class...has increasingly become differentiated in skills, income, and status. For analytical purposes, its members could be situated along a continuum that ranged from the skilled, unionized, blue-collar worker who were employed by the large industrial, service, or extractive industries, to the unemployed or underemployed very poor masses" (1985: 107).

contacts outside of the family and home (Leahy 1986: 61). "Bad" women are those who enjoy sexual pleasures, and have numerous interactions with non-familial men (Penalosa 1968: 683; Elmendorf 1977: 145). Daughters thus learn that "to be a good woman is to be a good mother and wife and that their identity and self-realization depend exclusively on the family" (Meyer 1977: 120; Penalosa 1968: 687; Stevens 1973). Self-sacrifice and self-denial for the sake of the family and the children are key elements of this model.

In contrast, young Mexican boys are taught by their fathers and male kin, about the biological, intellectual and social superiority of males. An ideal of "manliness" which is "devoid of elegance, beauty or sentimentality" is fostered, and any signs of feminization are quickly repressed (Penalosa 1968: 684). Boys are pampered by female family members, and accorded much greater personal freedom, and less responsibility than girls, thus learning independence and irresponsibility from an early age (Ibid.: 686).

Schools also play an important role in socializing girls and boys to aspire to different roles. From elementary school texts, little boys learn that they must provide for the family through some type of employment; little girls are taught that a woman's role is that of wife and mother (Leahy 1986: 58). The media and the church also act to reinforce these concepts that women and men have different roles to play in life (Ibid.: 60).

Ideally, within the marriage relationship (both legal and defacto) the woman's place is in the home looking after her husband and children. Work outside the home is frowned upon for it not only reduces the woman's financial dependence upon the man (a component of the machismo complex), but cuts back upon the amount of time she can dedicate to satisfying his needs (Ibid.: 685). The married man is the absolute master, and sole breadwinner in his

household.

Children play an important role in the lives of both women and men. It is in the role of mother and child-bearer that the woman is accorded the greatest respect and status (Sanders 1976: 48; Sanders 1975: 2). To become a mother is in many ways a rite of passage to adulthood. Masculinity is demonstrated by a man largely through sexual conquests, and the true proof of virility is to have lots of children, preferably male children (Stevens 1973; Penalosa 1968: 685).

To summarize, the ideal gender identities for men and women in the working class are those which conform to the cultural concepts of machismo and marianismo. The ideal woman is spiritually pure and devout, dislikes sex, is dependent, and places the needs of her husband, children and home above all else. The ideal man is sexually aggressive, and virile, independent, the sole breadwinner, and the master of his household. [44]

Despite having one of the world's most progressive constitutions which provides women with equal rights to men, and despite the changes of the last 50 years including revolution and industrialization, Mexico's perception of working class men's and women's social roles remains virtually unchanged (Leahy 1986: 52-60). These descriptions are, however, **stereotypes**, or idealizations of Mexican men and women. In day-to-day living and interactions, men and women function with multifaceted personas. Women, particularly if they are heads of households, or working,

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[44] There is some evidence that these sex role stereotypes are recent phenomena, a result of the process of colonization, and not a product of Mexico's indigenous past. For example, a study of the Isthmus Zapotecs concluded that the roles of the sexes tended to be mutually dependent and complementary in the economic division of labour, and other areas of the social system (Chinas 1973, in Elmendorf 1977: 143).

often hold decision-making prerogatives in the home (Elmendorf 1977: 140). In addition, the culturally ideal model of women dedicating all of their energies to the home, and of men being the sole breadwinners, is not possible for the majority of working class urban households in Juarez, because of male under- and unemployment. However, in aiming to achieve this ideal, men's and women's decisions and plans are affected. Thus both the psychological conditioning of the sex/gender system and the social pressure to conform to appropriate gender roles may influence attitudes about appropriate labour force participation.

The Sex/Gender System as it Affects the Supply of Labour to Assembly Factories:

It has been suggested that because of the socialization process, women in Juarez accept the stereotype that their primary roles are those of wife and mother, and that wage work, is a temporary though necessary deviation from their proper "natural" place in the division of labour (Ruiz and Tiano 1987: 8). These concepts about woman's role in the domestic sphere, and the appropriateness of paid employment for women influence to a certain extent the supply of women to maquiladoras. Because women are not conditioned to have career aspirations, and do not expect to have to work for long periods of time, factory work, which offers little hope for promotion is not considered unattractive. Women may not take offense at the high levels of supervision and control implemented by factory personnel, generally male, because they have been socialized within the family to follow male orders, and satisfy male needs.

While these factors may encourage women to seek out factory work, the stigma of "looseness" attached to female factory workers is likely to discourage those who have

internalized concepts of "good" and "bad" female behaviour.[45] One factory worker confided in Fernandez-Kelly, "I constantly worry about this because many people, especially men, treat you differently as soon as they know you have a job at a maquiladora. They surely think that if you have to work for money, there is also a good chance that you're a whore. But I assure you that my friends and I are decent women" (1983a: 135). While it is likely that some women will decline to apply for factory work because of fear of damage from this reputation, for others, either the assumed short duration of their term of employment, or their severe economic need overrides their fears and discomfort.

It is difficult to determine, without conducting field work, to what extent gender identity conditioning via the sex/gender system influences women's decisions regarding employment outside of the home. To a certain extent, this is determined by a woman's life cycle. That is to say, women's participation rates vary according to whether they are single women living with their parents, married women living with husbands and children, or older women with grown children who may still be married, or alone. At each stage, women's responsibilities and options change (Safa 1984: 1174; Fernandez-Kelly 1983a: 69).

It is reasonable to assume that the role model of the "good", spiritual wife/mother is a strong one, and a "norm" from which women judge their own behaviour and actions.

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[45] The reputation of moral looseness and promiscuity among maquiladora workers is, according to Fernandez-Kelly, based on ambivalent feelings towards female employment and its consequences on the traditional family and patterns of male authority (1983a: 134-5). The evidence cited by critics for this growing phenomenon is a large number of single mothers, and a growing number of illegitimate births among women working at maquila plants. This mythology is kindled by stories about indiscriminate sex, venereal disease and forced abortions among maquiladora workers which are reported periodically in the Juarez newspapers (Ibid.: 135).

However, women are not simply unthinking or unquestioning products of social conditioning. Neither are they "victims" of a male-dominated society. We will argue that women very carefully weigh the benefits of their options within the cultural context of their class and society. Women aspire to the role of motherhood because it is the role that accords them the highest social status in their cultural context. In contrast, women may resign themselves to what they believe will be a short stint in a factory for economic reasons, but will not aspire to factory work, because as explained above, such work is not highly valued. According to Fernandez-Kelly, "maquiladora workers'... perceptions, attitudes and aspirations...conform to traditional feminine definitions. Women often see their working status as temporary. They eagerly anticipate the prospect of marriage and motherhood linked to their retirement from the work force" (1983a: 140). Beneria and Roldan write, "motherhood... represent[s] an emotionally fulfilling, rewarding experience, whereas their occupational alternatives do not" (1987: 150). Thus, although participation in the labour force is becoming an economic necessity for a large number of Juarez women, they continue to aspire to the higher status role of wife and mother.

Men in contrast, are socialized to think of themselves as family breadwinners, and therefore feel a responsibility to seek out stable, long-term, well-paid employment to the best of their capabilities and skills. They are not likely to see jobs in maquiladoras which pay minimum wage, and are relatively static as attractive, unless they have very limited options. In addition, the nature of assembly work, which is highly structured, and intensely supervised, is unlikely to be appealing to men who have been conditioned to expect and value their independence. Factory work, particularly light assembly work, is considered "women's work". It is therefore also questionable whether men's

macho disdain for anything "feminine", which robs them of their masculinity and virility, would affect their applications to apparel and electronics factories. In their 1989 study of Juarez, Catanzarite and Strober found some evidence that men did not apply to maquilas because they knew that "women worked there", and perceived of the jobs as female (1989: 14).

In summary, it is argued that each gender approaches work with different responsibilities, needs, and ideal models of conduct they attempt to conform to. As a result of these differences, women in Juarez are much more likely, theoretically, to apply for maquiladora jobs than men. In both cases however, men and women must counter social "ideals" with economic reality, and their need to work.

Section Two: The Economics and Demographics of Supply. [46]

The Need to Work:

The Mexican cultural model of the male as the sole breadwinner has been described as a generally unattainable "ideal", which distorts the reality of family life for the urban poor of Juarez. In reality, most men who head lower class families cannot afford the luxury of preventing their wives and daughters from working (Elmendorf 1977: 148; Tiano 1986d: 20).

There exists in the literature however, a debate about women's need to work, particularly whether maquiladora factories have hired women who otherwise wouldn't have worked. Researchers such as Safa (1980), Fernandez-Kelly (1983a), Ehrenreich and Fuentes (1983) and Grunwald and

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[46] It is important to note that data on male assembly workers are severely limited. This is partly because of their small numbers, but also because the majority of studies which have been conducted on maquiladoras in Juarez, or Mexico for that matter, have focused on women rather than gender.

Flamm (1985) have argued that maquiladoras have hired women who were neither employed, nor actively seeking employment prior to the establishment of free-trade zone factories. Fernandez-Kelly has called these women members of the "inactive population", and states that they were components of a formerly unemployable sector (1983a: 45). She writes, "Maquiladoras have thus created a **new working contingent**, expanding, in fact, the size of the potential labor force while at the same time disfranchising from its rank and file the majority of male workers" (Ibid.: 45, emphasis added). Fernandez-Kelly does not, however, provide any data to support this claim, or define what she means by the term "unemployable". We are left wondering whether these women were in need of, but unable to secure employment, and, if they were supported by fathers and husbands, how have conditions changed in such a way that these women are now seeking work ? Grunwald and Flamm write, "What seems to be clear is that maquila workers in Mexico are not drawn from the traditionally unemployed or underemployed but from a sector of the population that **never worked or looked for work**" (1985: 167, **emphasis added**). The authors, however, offer no proof of this argument.

This view leads to two related conclusions, firstly that prior to the establishment of the maquiladora program women had little or no need for paid employment, and secondly that unemployment in northern Mexico was and is primarily a male problem. Others argue that these statements are inaccurate.

Stoddard stresses that women in Mexico must work, and throughout their history have always worked because they cannot rely on males for their own support, and that of their children (1987: 62). Tiano insists that the belief that women do not need to work outside the home for wages because they are supported by a male breadwinner, is belied by the fact that a large number of women are in the work

force (1986d: 35). Using 1970 Mexican census data, she demonstrates that throughout Mexico, the border states included, 21.5 percent of women aged 12 and over worked outside of the home. Indeed, contrary to the assumption that women drop out of the labour force to attend to full-time domestic responsibilities as they enter their thirties, Tiano showed that the labour force participation rate did not drop below 20 percent until women were in their mid-forties. These facts she concludes demonstrate that many of these women continue to work well into their married, child-rearing years, either because their spouse is unable to adequately support the family, or they are single heads of households as a result of death, divorce or abandonment (Ibid.: 24). Tiano insists that these statistics on female labour force participation do not reflect a post-maquiladora phenomenon, but rather that it was the existence of a large pool of female labour which led to the establishment and growth of maquiladoras (Ibid.: 37).

With regards to the second conclusion, that unemployment is a male rather than female problem, once again, Mexican statistics demonstrate otherwise. [47] Tiano cites 1979 Mexican data which illustrate that women in each of the three northern regions are more likely to be unemployed than comparably aged men. Although the survey neglected the "discouraged worker", and the figures are thus underestimates, even these underestimates show unemployment to be a problem for women. For example, in the Northern

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[47] The ICRW has suggested that the assumption that women have lower under and unemployment rates than men is supported partly by inaccurate census data, the number of active job seekers and labour utilization. They argue that female unemployment is not given adequate attention because of the beliefs that a) women's work is not important, and, b) that because female participation rates are low, the absolute number of unemployed women must therefore be considerably lower that the number of unemployed men. Both of these assumptions they stress are incorrect (1980: 63).

region, the total male unemployment rate is 3.50, compared to the total female rate of 4.59 percent. In the Northeastern region, the total male unemployment rate is 3.12 compared to the total female rate of 6.48 percent. While in the Northwestern region, the total male unemployment rate is 2.45 percent compared to a 2.85 total female rate (Ibid.: 30-1). Interestingly, the highest rate of joblessness was reported amongst women between the ages of 12 to 24, exactly the age group from which maquiladoras prefer to hire (Ibid.: 29). [48]

In summary, the men and women of Juarez both have a strong economic need to secure paid employment. Unemployment affects both genders and all age groups, and competition for scarce jobs is severe. It is under these conditions of economic hardship that family survival strategies come into play.

Given male underemployment, the three most commonly utilized strategies for increasing a family's income involve deploying an adult female family member to seek paid employment - hopefully in a maquiladora. The most frequently used strategy is for the adult woman - wife, or single head of household - to seek employment. The underemployment and unemployment of male kin, specifically their spouse, is the most commonly given reason why adult women seek paid work (Tiano 1986b: 168; Fernandez-Kelly 1983c: 11).

Adolescent girls are also sent out to find work, and are expected to contribute all or most of their earnings to

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[48] Tiano's paper does not clarify how "unemployment" for the 12 to 24 age group was defined or calculated.

This age group of women, 10 to 29, makes up the largest number of migrants to the border areas (Tiano 1986d: 32). Although the data are not clear, it seems likely that this constant addition of migrants contributes to the high unemployment rate of women in this age group, despite the job opportunities that maquiladoras offer.

supplement the family income (Elmendorf 1977: 148). In Juarez, they have a good chance of securing a maquiladora job, and thus become important, if not key income earners for their families. The literature is not clear about whether or if adolescent boys experience the same pressure to make financial contributions to the family. Fernandez-Kelly has brief quotations from Juarez families which stress the comparative lack of importance of education for young women rather than men, and references to young girls, whose assembly factory incomes will enable younger brothers to attend secondary school (1983a: 181, 183). It is therefore possible given the cultural importance placed on education for male but not female children, and more specifically, the possibility of maquiladora employment for young women, that female children will be dispatched into the workforce before male.

A third, and somewhat less common practice is to take in female family members, for example, nieces, cousins etc, in the hopes that they will secure maquiladora jobs, and contribute to the household income pool (Young 1986a: 90-1). Young writes, "Since the maquiladoras show a strong preference for women workers, female household members, especially those who are young and single, represent a real economic asset" (Ibid.: 90).

In sum, it becomes evident that the working class women of Juarez, both young and older have become increasingly important income earners. The possibility of employment in maquiladoras, which prefer to hire women, especially young women, makes women a significant asset to families struggling to survive.

Employment Options Available:

We have determined that the majority of working class women and men in Juarez need to work. Below, we will examine the employment alternatives available to each

gender. This will enable us to determine not only the comparable number of alternatives available to women and men, but how maquiladora factory work is evaluated and ranked by the population.

Women:

The most common work options available to working class women in Juarez include domestic work, informal sector jobs, maquiladora assembly work, white collar employment as retail clerks, secretaries or hairdressers/beauticians, and prostitution. We will look at each option separately.

Statistically, one out of every three Latin American women who works for a wage does so as a domestic (Fernandez-Kelly 1983b: 215). Ruiz has calculated that at least 15-20,000 homes in El Paso hire domestic help. The majority of these workers are women from Ciudad Juarez who are employed as both daily maids, and live-in household workers. Some of these employees have work permits, but the majority are undocumented workers who cross the river into El Paso Monday morning, and return to Juarez on the weekend. In 1986, the former were paid an average of $15 per day, the latter earning $30 to $60 per week. This salary represented approximately five times the average wage of factory work in a maquiladora (1986: 63). Despite the appeal of a high wage, problems such as fear of frequently crossing the border, employer abuse and child-care problems discourage many women from pursuing domestic work (Fernandez-Kelly 1983b: 212; Ruiz 1986: 74). One woman told Fernandez-Kelly, "All I wanted was a job. But they [immigration officials] made me feel like a criminal. Crossing the border was simply not worth the price; it is better to stay here and struggle" (Ibid.: 212). Mexican men, who are culturally freed from domestic and childcare responsibilities, tend to migrate alone, and stay for long periods of time. In contrast, most women who are employed

as domestics return to Mexico each weekend to attend to their children and visit kin, and thus increase the likelihood that they will be detained and harassed by immigration officials (Ibid.: 212). Only those women who are single and have one or no children migrate alone and are able to remain in the United States for an extended time (Ibid.: 212). [49] When compared to factory work, particularly in foreign multinational electronic plants which offer a host of social service benefits including medical coverage, domestic work is considered less attractive (Ruiz 1986: 63). However, for those women who do not meet factory hiring criteria, domestic work represents the next best alternative (Ibid.: 63).

Informal sector work, which involves the running of tiny businesses, such as laundry services, and street vending of food and craft items, is an option for women which offers more flexibility in terms of time commitment. This is an advantage for those women with children. However, income is generally low and irregular, and such employment offers no social security such as that which is provided by contractual wage labour (Taylor 1985: 40; Charlton 1984: 133). For those, however, who are unable to secure factory or domestic work, informal sector employment offers a means to earn some income.

Work in maquiladoras, specifically foreign-owned electronics factories is considered the best employment alternative for women in Juarez (Fernandez-Kelly 1983b: 217; 1983a: 188). Jobs in domestic-owned apparel factories,

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[49] Bossen has suggested that childcare responsibilities strongly influence the choices women make with regards to work location. Calling this the "locational model", she argues that the compatibility of work tasks with the care of children is a major consideration for women (1989: 324-5). The data from Juarez confirm that women may reject the option of migration because of the difficulties involved with the care of their children.

where working conditions are inferior, and benefits less generous, are considered second best (Stoddard 1987: 66). One maquiladora worker of 10 years told Fernandez-Kelly factory work "has given us, women with few options, the opportunity for honest employment. For many it means not having to work as domestics in the U.S. or in disreputable places" (1983d: 32).

With regards to electronics plants, even though wages are not exceedingly high, the benefits offered by factory employment, specifically medical coverage for the worker's children, are considered very important. Fernandez-Kelly documented cases where young girls actually planned their entrance into maquiladora employment. She writes, "Many find jobs as maids. In the meantime they try to acquire the qualifications necessary to become assembly workers (mainly more years of schooling at night) and wait for their chance to get a job as a maquiladora" (1983b: 216). In sum, factory work is highly desired, and for many women, represents a "step up the occupational ladder" (Ibid.: 216).

Although there is a large service sector in Ciudad Juarez, the majority of white collar jobs found in it lack "stability, adequate earnings and benefits" (Fernandez-Kelly 1983a: 54). In fact most secretaries, receptionists, salespersons, and beauticians earn less than maquila assembly workers, while the more prestigious and better-paid occupations are only available to those who are highly trained and/or speak English (Ibid.: 54). Fernandez-Kelly has documented cases in which white-collar workers such as nurses had resigned to take up factory work because of its superior wage (Ibid.: 126). She concludes that to a certain extent, the generalized services and clerical jobs available to most women (those that do not require specialized training) are interchangeable with wage domestic work (Ibid.: 54).

Prostitution is considered the least attractive, and

last alternative for most women. In her fieldwork in Juarez Fernandez-Kelly found that some women combined prostitution with factory employment to supplement their income. She suggests that "rarely is prostitution a full-time occupation. Frequently it is an alternative chosen by women at times of personal economic crisis" (1983a: 143). In brief, women who work as prostitutes do so out of economic necessity, when their wages are insufficient, or when all other venues of work have been exhausted.

To recapitulate, there are limited options for the working class women of Juarez. Young, single, relatively well educated women, with no children have the best job opportunities, and are frequently able to secure jobs in factories and, if they are willing to accept lower wages, the service sector. Rural migrants, who have less education, and/or are Indian in origin and may be subject to discrimination, generally become domestic servants (if they do not have many children), or find work in the informal sector. Older women, who have children and heavy domestic responsibilities, may find employment in apparel factories, as domestic servants, or in the informal sector (Tiano 1986a: 56). Above all though, women's changing needs and responsibilities influence the way they select and apply for jobs. The advantages and disadvantages of each option are evaluated, along with their knowledge of the hiring practices involved which will affect the likelihood of their being hired.

Men:

The information on employment options for men in Juarez is not as rich as that for women. A limited list of occupations for men includes unskilled construction work, trade apprenticeships, informal sector self-employment, assembly factory work, work in services such as restaurant work, and migration to the United States

(Fernandez-Kelly 1983b: 217). [50]

The building of free-trade zone industrial parks and factories has provided considerable employment opportunities for men in Juarez to work as unskilled construction workers. Apprenticeships in trades such as bricklaying, carpentry, mechanics, electrics etc., have also been available to small numbers of men, allowing them to learn valuable and useful skills. As explained above though, the construction industry in Juarez is experiencing a slowdown, and skilled, and even unskilled jobs are becoming more difficult to secure (Catanzarite and Strober 1989: 23). Displaced workers and tradesmen may now look to other alternatives, such as maquiladora work, or migration to the United States, or they may well seek out construction work in the interior of Mexico where new free-trade zone industrial parks and factories are being rapidly built (Baker et al. 1988: 102).

For men and women alike, informal sector employment is considered one of the last alternatives when other options for wage work have been exhausted. It is the older, unskilled, poorly educated, and recently migrated men who tend to end up in this sector.

Unskilled assembly work in maquiladoras is not ranked very highly on men's list of options. This is partly because it is considered "woman's work", and because there is a common understanding within the city that companies rarely hire men (Ibid.: 15). Catanzarite and Strober did however find evidence in mid 1989 that men, out of economic necessity and a decline in other alternatives, were

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[50] This list of male occupations was derived from data collected about men who live in maquila households, ie.: households which had at least one female maquiladora employee. As such it is in no way to be taken as a complete list of all employment options available to working class men in Juarez.

beginning to apply for maquila jobs (1989: 23-7). [51] Men, like women, must however satisfy the entrance requirements of maquiladoras. If selected, however, there is a much better chance that men, rather than women, will be trained by management, and moved up into more skilled and authoritative positions. [52] Pena writes, "Male workers who assume first-line supervisory positions are either promoted from the ranks of line operators, technicians, and quality control inspectors or they are recruited into the positions - usually right out of engineering school. Few female workers break into the first-line supervisory ranks" (1986: 140).

Work in the service sector, for example in restaurants, bars, retail etc., is considered an acceptable employment alternative which generally pays minimum wage, but involves long hours and offers fewer benefits than maquila work (Catanzarite and Strober 1989: 23-4).

Migration, specifically to the United States, but also to other areas in Mexico, is a frequently-chosen male option. It is generally young, productive males who migrate across the U.S. border as undocumented or illegal aliens, lured by high wages and by the requirements of U.S.

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[51] The size of this survey was limited, only 12 assembly workers were interviewed. The authors did however find preliminary data which indicate that as a result of changes in the Mexican economy, and a decline in employment options available to men, men in Juarez are now considering maquila work more attractive. We have yet to see, however, whether this increased male supply results in changes in management demand patterns.

[52] The ILO writes that a woman is less likely to be promoted than a man because of prevailing sex stereotypes and prejudices which make males the legitimate breadwinners, and females responsible for domestic matters. In addition, many company policies deliberately prefer men in supervisory positions because it "maintains external social relations of female subordination to male authority, and thus serves to enhance discipline in the factory" (1985: 57).

agribusiness (Sanders 1986: 5). In fact, the frequency with which working class men from Juarez migrate to the U.S. has helped to create a numerical imbalance in Juarez, where there are more females than males (Fernandez-Kelly 1983a: 139). For example, out of the 510 female maquiladora workers Fernandez-Kelly interviewed, more than half had one or more male illegal aliens amongst their immediate relatives, particularly fathers and brothers. In addition, numerous married and common law wives, in her study, had been deserted, both temporarily and permanently, by men who were both frustrated by their inabilities to satisfy the economic needs of their families in Juarez, and eager to start a new life in the United States (1983b: 218).

The general impressions from the literature are that male employment options are limited, and that employment is often temporary and insecure in nature (Tiano 1984, 1986d). Over and over it was stated that women, daughters and wives, sought out jobs because of the difficulties their male kin experienced in finding work. At the time of Fernandez-Kelly's study, 11 % of all males co-residing with maquiladora workers were unemployed (1983a: 56). Like women, age and skill level, but not so much marital status and number of children, play an important role in affecting the employment options of men. Young men, married and unmarried, are culturally freed from domestic and childrearing responsibilities, and are able to seek out opportunities in the United States and other regions of Mexico which will enable them to support their families. Construction, factory, and service jobs are also possibilities for such productive males. Older men, like women, who are unskilled, or unable to meet hiring requirements for desirable jobs, have fewer alternatives, and may resort to informal sector work. In all cases, men and women must be prepared to continually adjust to changing market needs and opportunities.

An examination of the reasons male and female assembly workers give for both remaining in maquiladoras, and for resigning, helps clarify both the perceived advantages and disadvantages of such employment. When asked why they stay in assembly work, men refer to their need for a stable wage income given the limited options in Juarez, and a hope that they will both receive training to move beyond the assembly line, and be promoted to better wages. Women also refer to their financial need, and the benefits accrued from factory work. But they also mention improved living conditions (Seligson and Williams 1981: 47-49; Young 1986a: 102-106), and particularly in the case of young single women, some fun and freedom as a result of earning small amounts of discretionary income (Ehrenreich and Fuentes 1983a: 25; Young 1984: 396).

The most common reasons listed by men for resigning from maquiladoras include the tediousness of the work, frustration because of a lack of promotion out of the assembly area, dissatisfaction with salary which is attributed to lack of promotion, disputes with management and supervisory personnel, lack of unionization in factory, and the securing of a better job elsewhere (Stoddard 1987: 47). Women also list many of the above reasons as men, but also claim fatigue, and physical illnesses which result from the strain of factory work and, in the case of women with children, the pressures of the double burden of domestic/childcare responsibilities and work (Fernandez-Kelly 1983a: 137, 162; ICRW 1980: 54-7). Female life cycles also play a role in women's decisions to leave factory work. Marriage, pregnancy, and a desire to dedicate their attentions to their domestic responsibilities are also common reasons why women resign (Fernandez-Kelly 1983a: 68; ILO 1985: 33).

Demographic Data on Maquiladora Assembly Workers:

Those who apply to and are hired by offshore assembly factories fall into quite distinct demographic categories according to factory type, electronic or apparel. Statistics on male assembly workers are included where possible.

Most studies on northern border maquiladoras have confirmed that there exists a significant difference in the ages of workers in electronic versus apparel industries. In her study of **female** factory workers in Juarez, Fernandez-Kelly found that the median age of electronic workers was 20 years, and that of apparel workers was 26 (1983a: 50). Similar statistics have also been reported by Pena (1983), Seligson and Williams (1981), and Tiano (1986d). Seligson and Williams, in their survey of 6 border cities (Juarez included), also collected data on male assembly workers, and found slight differences in age patterns. The average age of women from both factory types was 23.8 years, while that for men was 25.2 years (1981: 33). Whilst they do not break this information down into categories of age, sex and industry type to allow us to determine if age patterns also exist for males, they do however provide a table showing data on percentages of workers (undifferentiated by factory type) by sex in three key age cohorts. This is summarized below.

BIP Workers.	Percentage of Workers by Age. (15-19)	(20-24)	(25-29)
Male	45.5	32.4	20.8
Female	54.5	67.6	79.2

(Seligson and Williams 1981: 33)

Interestingly it is in the younger two age cohorts, 15-19, 20-24, that men are most strongly represented. It is precisely these age groups which are preferred by maquiladora management. In the older age category, 25-29 years, into which most apparel workers fall, men are much

less well represented. From this information, we could deduce that the small numbers of men who are hired by maquiladoras are more likely to work in electronics factories than apparel.

With regards to female factory worker's marital status in Juarez, Fernandez-Kelly discovered that 61 % of electronics workers were single, compared to 54 % of apparel workers (1983a: 52). Seligson and Williams provide a table of data which breaks down BIP workers' marital status by sex and age for all industries combined in the 6 cities studied. The authors disccvered that the overall percentage of married male BIP workers was almost identical to that of males in the general population, but that female BIP workers, were less likely to be married than non BIP females (1981: 35). Seligson and Williams believe this difference is partially explained by age, in that married BIP workers are generally older than single workers (Ibid.: 39). As we saw above, male assembly workers are on average older than female. We may also hypothesize that the marital status of male assembly workers is not as important as the status of female workers, to maquiladora managers.

When examining fertility rates, Seligson and Williams concluded that BIP females were likely to have fewer children than the general population of females in all age groups 20 years and older (Ibid.: 37). They suggested that this lower fertility rate was related to BIP women's lower likelihood of marrying, compared to the general population, but also to BIP women's higher educational levels (which tend to influence fertility levels), and to the socialization process of factory work which contributes to the "independence" of female workers (Ibid.: 39-41).

The average educational level for Mexican workers is approximately 3.8 years. In comparison, most maquiladora workers have completed at least 6 years of schooling, and many up to 11 years (Fernandez-Kelly 1983a: 215). In her

study of female workers in electronic and apparel factories, Fernandez-Kelly found that the former were generally better educated. Fifty-nine % of apparel workers had completed only 6 years of schooling in comparison to 38 % of electronic workers, while 59 % of electronics workers had completed 7-11 years of education in comparison to 33 % of apparel factory employees (1983a: 52). [53] In comparing the educational levels of their 739 male and female assembly workers, Seligson and Williams found that males had a slightly higher mean than females, 7.5 years, versus 7.3 years respectively (1981: 41). In sum, BIP workers, both male and female, are much more highly educated than the general public. The relatively similar levels of education between male and female BIP workers rules out the possibility that females have been preferred because of superior educational qualification.

Differences were also discovered between the work experiences of female assemblers. Within the electronics industry, 60% of employees had not had any previous work experience. By contrast, in the clothing sector, less than 30% of those studied had not had other jobs (Fernandez-Kelly 1983a: 53). Of those who had previous experience from both factory types, approximately 40 % had worked in the service sector as clerks, cashiers, office personnel etc., by far the largest percentage, 60 % had worked as domestics, generally undocumented aliens (Fernandez-Kelly 1983b: 216). These data illustrate to what extent electronics maquilas prefer to hire women with no prior experience, so called

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[53] Many of these women, 20 % of Fernandez-Kelly's study of 510 women, had taken courses in commercial academies where they acquired skills such as typing, accounting, and 11% of her study have training as nurses, secretaries, computer technicians, beauticians and seamstresses (1983a: 52). However, many women with these skills end up working at maquiladoras because assembly jobs pay more, and offer superior benefits, and white collar service jobs are hard to secure.

"virgin workers", though this is also a reflection of electronics workers younger average age (Tiano 1986c: 86). No information is available on employment histories of male maquiladora workers.

A profile of assembly workers is not complete without a discussion of household composition and income distribution. There is unfortunately almost no information on the household composition etc., of male assembly workers. Fernandez-Kelly's Juarez study of female assembly workers makes interesting links between household composition, family size, male unemployment and female employment. Seventy-nine percent of all single maquiladora workers interviewed were daughters living with their parents and siblings; another 3 % lived with friends and the remainder were heads of households living with their children (1983a: 54). All married women interviewed lived in independent households with their husbands and children. [54] With regards to industry types, 76 % of electronics workers were single daughters living in their nuclear households, in comparison to 59 % of clothing workers. Only 6 % of electronics workers were single heads of households, whereas an impressive 31 % of clothing workers were (Ibid.: 54). [55] Fernandez-Kelly argues that employment in the maquiladora industry seems to be related to the proliferation of female-headed households. It has been suggested that factory work is the cause for the rise in the number of female-headed households. The argument is that "[working] women...press to obtain greater participation in familial matters, thereby threatening the authority of fathers and husbands. At the

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[54] Fernandez-Kelly does not clarify whether women cohabitating with men were classified as "single" or "married".

[55] In her study of maquiladora households in Juarez, Young found that women heads of households in maquila households ranged from almost double to eight times the rate of women headed households in non-maquila families (1986a: 108).

same time, they may be accused of neglecting their proper role....both factors may cause the fragmentation of "intact" families and the formation of households headed by women" (Ibid.: 55). However, Fernandez-Kelly insists that 90 % of the female headed households in her study were in existence before the women began working in maquiladoras, and that the women she interviewed insisted that it was precisely the absence of male support, as a result of death or desertion, that forced them to look for work (Ibid.: 55). Thus although in some cases the independence women acquire as a result of paid employment may contribute to the breakup of families, these data indicate that the majority of female headed households were formed as a response to a lack of male support, rather than changes in status as a result of factory employment.

Fernandez-Kelly discovered that the average maquiladora worker's family was larger than most in Juarez, with a mean of 7 members compared to 5.3 for non-maquila households.

Number of Children per Household by Age.

Children 14 Years or Younger	Electronics (%)	Apparel (%)
1-3	59	50
4-7	15	23
8 or more	-	4
none	26	23
	100	100

(Fernandez-Kelly 1983a: 56)

The table above illustrates that a large percentage of these family members were children under the age of 14, and that apparel workers were likely to have larger numbers of children. Fernandez-Kelly suggests that these statistics, when combined with data on male under and unemployment, provide us with a better understanding of how familial needs converge with market conditions to propel women into the labour market.

Information on income distribution highlights just how critical female maquiladora wage contributions are to many families (Tiano 1986c: 90).

Maquiladora Workers' Participation in Household Support.

Number of Providers	Electronics (%)	Apparel (%)
- Interviewee only provider	15	27
- 2-3 maquiladora workers as only providers	15	9
- 2 or more providers (maq. workers and others)	70	64

(Fernandez-Kelly 1983a: 57)

The table summarized above illustrates that most maquiladora workers can hardly be considered as supplementary wage earners. When comparing single and married workers, it was discovered that 20 % of the single workers living with their parents and siblings were the primary providers. The majority combined their earnings with those of other household members. Four percent of married workers were the sole supporters of their household, while 73 % reported using all of their income for family and work related expenses (Ibid. 57).

What conclusions can be drawn from this section ? Firstly, there exist patterns which differentiate female employees in the two factory types. Electronics workers tend to be younger, single, childless or have few children, well educated, have a longer residency in Juarez, and have little or no prior work experience. These workers are also likely to be single daughters living with their families, and contribute their incomes with other working family members. In contrast, apparel workers are on average, older, married, less well educated, have a shorter residency period in Juarez, and have extensive prior work experience. Many are single heads of households, and their households

are more likely to contain large numbers of children under the age of 14.

Differences between male and female maquiladora workers are not as clear. On average, male workers are slightly older than female. Males are also more likely to be married, and are slightly better educated than females. The higher incidence of males being married can be explained by the fact that men are on average older than women, but we can also wonder whether male marital status is not such an important hiring issue for maquiladora managers, who perhaps assume that men have no domestic responsibilities to interfere with their work performance, or who perceive of married males as equivalent to "virgin" female workers- more docile, submissive, manageable. It is not clear that education is an important variable in the selection and supply of males versus females.

What conclusions can we make about the supply of labour to maquiladoras ? We do not know to what extent the sex/gender system influences male and female decisions to seek out employment at assembly factories. A direct causal relationship can only be hypothesized, and this relationship, if it indeed exists, must be tempered with the economic reality that men and women face.

Economic and demographic data confirm that the large majority of working class women and men in Juarez **need** to work, but their options are limited. Demographics on assembly workers demonstrate that patterns exist between industry types and employee statistics. These patterns are particularly strong with regard to female employees. These patterns obviously predominantly reflect management hiring and personnel policies, but must also reflect the labour pool from which maquiladoras select their employees.

Chapter Six.

The Sexual Division of Labour in Juarez Assembly Factories.

In this chapter we will look at a selection of theories, mainstream and feminist economic, which have some explanatory value of the sexual division of labour in the capitalist labour market. We will try to highlight those theories which best make sense of the sexual division of labour in offshore assembly factories in Juarez. This will be a three part process. Each theory will be briefly presented, criticized, and then applied to the Mexican data.

The Neo-Classical Model:

There are two differing schools of thought in the neo-classical approach, the "overcrowding hypothesis", and the "human capital theory". According to the first approach, the position of women workers in the labour force is explained by the exclusionary practices of employers which force women into a relatively small number of occupations, and the low capital-labour ratio associated with these occupations (Blau and Jusenius 1976: 184). Because women are restricted by demand factors to a limited set of occupations, women receive lower wages, and men receive higher wages than if such restraints to female opportunity did not exist (Ibid.: 183-4). It is believed that this form of discrimination within the labour market will eventually disappear through the combined forces of competition, and the process of capitalist relations of production, because it is economically irrational (Fernandez-Kelly 1983a: 92).

In contrast, human capital theory argues that women's productivity is low because women have lower stocks of accumulated human capital (Ibid.: 183). This approach stresses that women and men are not interchangeable, and

that women accumulate less human capital through work experience, because proportionately they spend fewer years in the labour force than men (Ibid.: 185; Humphrey 1987: 3). Because of the utility of women's non-market work in the domestic sphere, families make the rational decision that women should not work continuously (Blau and Jusenius 1976: 186). As a result, "women tend to concentrate in occupations requiring less skill and consequently will receive lower wages when entering the labour market" (Fernandez-Kelly 1983a: 93).

Critics of the "overcrowding hypothesis" point out that employer tastes are not sufficient causal factors to explain occupational segregation, and that structural constraints affecting the organization of production within the labour market must be considered. Blau and Jusenius argue that "It is not clear why so many employers would have such tastes against women in certain occupations, nor is it clear why employers' aversion should be so 'strong' that they are not compensated for their disutility by the prevailing male-female pay differential" (1976: 184). The model is also criticised for overlooking decision-making processes at the household level which may affect labour supply and thus segregation (Fernandez-Kelly 1983a: 93).

Critics of the "human capital theory" argue that the framework is static, and fails to explain discrimination in employment and wages (Ibid.: 93). Fernandez-Kelly asserts that the theory cannot explain why women, although few, are found in skilled jobs and some men occupy unskilled jobs, and why women tend to concentrate in specific occupations within each skill category, unless external factors such as personal tastes are considered (Ibid.: 94; Blau and Jusenius 1976: 187). The model assumes freedom of choice for individuals, and as Blau and Jusenius remark, there is "no concern expressed over the constraints imposed by society which limit women's freedom to make their own

decisions or influence the way in which others, such as employers, make decisions for them" (1976: 187). The model must also be considered weak for its failure to take into consideration demand-side (employer) factors which affect occupational distribution.

In sum, the limitations of the former model which overlook labour supply are not compensated for by the latter model which fails to consider employer demand for labour. Both household supply **and** market demand must be studied to understand the process at work.

The weaknesses of the two models become even more apparent when we apply them to the Juarez data. With regards to the overcrowding theory, Juarez data confirms that demand-side factors, such as the hiring and personnel policies of assembly factories, play a large role in the placing of women into assembly positions, and that the crowding of women into a relatively small group of occupations combined with a large number of women seeking such employment keeps wages low. However, we cannot ignore supply factors, such as the large pool of female labour, and inadequate male support, which make women willing and easily exploitable workers. Contrary to the argument that it is economically irrational to selectively hire women, and that market forces will eventually restore a gender equilibrium in the work force, in the case of maquiladoras, we have clearly seen how the hiring of young Mexican women is economically profitable, and the result of rational decision-making.

Human capital theory accurately reflects how Mexican women spend less time in the labour force, and also how the decision of whether or not a woman works is a family one based on family need. However, beyond this, the theory is not able to explain why so many of those women who seek out work **choose** to work in maquiladoras. Our discussion of women's employment options in chapter five illustrated how

highly factory assembly work is evaluated by women in comparison to other options. Nonetheless, the demographics of electronic and apparel factories reveal clear patterns. Electronics plants tend to hire young, single, childless, well-educated women who have resided in Juarez for a relatively long time. Apparel plants hire predominantly older, married women who have children, less education, and are more recent migrants to Juarez. In other words, specific "types" of women end up in specific "types" of assembly industries, and these patterns cannot be explained without referring to demand factors.

In sum, both varieties of neo-classical theory rely too heavily on the personal tastes of employers and employees respectively. The belief that the market is, or will eventually be perfectly competitive causes theoreticians to overlook social and political forces which contribute to the perpetuation of gender-based segregation and discrimination.

Marxism:

According to classical Marxists, the causal factor explaining the position of women, like men, in the labour market is capitalism, and women who work in the paid labour force are considered producers of surplus value just as men are. Occupational and sex stratification in the labour market are "surface manifestations" of the underlying social relations of production in a capitalist society (Sokoloff 1980: 191). The occupational stratification which arises within a capitalist society is not perceived as causing women's inequality, but rather is a reflection of the manner in which the capitalist system operates (Ibid.: 71). While it is acknowledged that sex discrimination on the part of employers does exist, it is believed that these practices are "antithetical to the logic of capitalist development", and that once women become a full part of the industrial work force, market forces will force employers to change

their discriminatory ways (Humphrey 1987: 4).

Marxists acknowledge that women function as a large segment of the reserve army of labour, and are used in the lowest paying jobs because they are a cheap source of labour, and because their unpaid domestic work as housewives and mothers is of benefit to capital (Sololoff 1980: 192). Because women's work is of benefit to capital, in that it acts to decrease wages generally, and keeps other workers, specifically men, in line from the fear that women could be substituted to do their jobs, the sexual division of labour and the economic subordination of women which help maintain such conditions are perpetuated (Mackintosh 1984: 6-7; Sololoff 1980: 77).

Monopoly capital Marxist theorists are a 20th century branch which see the monopoly stage of capitalism as the causal factor of the segmented labour market which has arisen, and of women's unfavorable position within it (Sokoloff 1980: 192). According to this school, understanding how the segmented labour market is established under the power of monopoly capitalism, leads to analyses of how the labour market is used to divide the working class (including men against women), why certain jobs and economic sectors emerge and are transformed, and how women specifically are integrated into the newly developing and changing economic sectors (Ibid.: 192). These theorists focus on how scientific management principles, the deskilling of labour power, and the creation of new industries and markets have contributed to the incorporation of women into wage labour (Ibid.: 84, 91).

Criticisms of the classical Marxist analysis are varied. Joekes takes aim at the idea that capitalists employ laborers without regard to gender. She writes, "Any notion of the value of labour in the abstract is outweighed by the idea that men and women are significantly different when it comes to supplying labour" (1985: 183). We might

add that capitalism is not sex/gender blind, even if in some respects Marxist analysis is.

Hartmann argues that Marxist analyses of capitalism provide an excellent theory of the different "places" required by capitalist production, but do not begin to explain why women end up at the bottom of such a hierarchy (Hartmann 1979, in Phillips and Taylor 1986: 56).

Mackintosh agrees with Hartmann, arguing that analyses which show that women's work, as cheap labour and housewives is beneficial to capitalism are insufficient as an explanation of sex segregation, for they cannot explain why it is women who consistently perform these tasks (1984: 8). She suggests that we have to advance beyond an explanation which revolves around the advantages of women's work for capital, and that the sexual division of labour cannot be explained simply in terms of the requirements of the production system. She stresses how feminist analysis has determined that women's subordination within society predates capitalism, and that "it cannot be explained solely in terms of the inherent logic of the capitalist system" (Ibid.: 9). Beechy concurs, writing,

> Marx is unable to provide an adequate explanation of the specificity of female labour since his work lacks a theory of the family and the sexual division of labour, and hence cannot address the ways in which patriarchal ideology functions to reproduce the sexual division of labour within the capitalist mode of production (1978: 158).

Critics of the monopoly capital school argue that theorists overlook the importance of supply factors such as gender identities, and the institutions of homemaking and motherhood in determining women's labour force participation. Sokoloff complains that the influence of patriarchy is not discussed, but assumed to be a function of capitalism, rather than a social factor which functions independently, and is often in conflict with the needs of capital (1980: 193).

When considering the data gathered on the hiring practices of maquiladoras in Juarez, it is quite clear that contrary to classical Marxist theory, capitalists do consider gender when selecting employees. Workers, male and female, are **not** considered interchangeable, and maquila managers go to great lengths to hire specific genders of employees for specific positions. Additionally, Marxist theory is not able to help us understand why it is that women predominantly fill the unskilled assembly positions of these factories. The argument that women are hired by capital to fill certain positions because it is advantageous to capitalists, is not an explanation. Women's position in the work force is not simply a product of the logic of capitalism. In the case of Juarez, we have seen how women's role in the family and home, and the importance of the domestic role for women, come into contact with, and frequently conflict with the economic pressures women face to make financial contributions. In short, we must not forget that women and men have different qualities of labour to offer employers as a result of their differing domestic responsibilities.

The monopoly capital approach is weakened by its lack of analysis of supply factors, particularly the role of motherhood and homemaking for women. By simply assuming that such roles are a function of capitalism, they overlook the possibility of conflict. For example, in the case of Mexican women, there exists for many a conflict between their desire to stay at home, and their need to work. Such conflicts can influence women to limit their choices of employment alternatives. The strength of the monopoly school approach lies in its acknowledgment of the changes which have taken place in the world capitalist system over the last 30 years, and its understanding that these changes must be considered when examining women's status.

Dual Labour Market Theory:

The general hypothesis of this theory is that over time there have come to exist two distinct labour markets in industrialized countries. These are termed "primary" and "secondary" labour markets. The "primary" market is characterized by high wages, good working conditions, stability of employment, and opportunities for advancement. The "secondary" labour market is made up of much less attractive jobs, which are poorly paid, with dirty and often hazardous working conditions, they are unstable, and generally dead-end (Fernandez-Kelly 1983a: 94; Humphrey 1985: 218). Mobility across the boundaries of these sectors is considered severely restricted, even non-existent by some (Sokoloff 1980: 36).

With regards to women's labour force activity, the theory argues that men and women are recruited into different occupations and labour markets, and that in terms of wages and status, women are treated unequally in comparison to men (Ibid.: 35, 190). The dual structure of the labour market is explained as the causal factor for women's disadvantaged position - socially, economically, politically - in the labour market.

Women are mainly recruited into the "secondary" market. Men on the other hand are much more likely to be hired by the "primary" market (Ibid.: 35). When attempting to explain such a division, theorists suggest that occupations are defined without reference to the gender of those who fill them, but that women lack access to the "productivity enhancing opportunities" which would allow them to improve their wages and move up to the "primary" sector (Humphrey 1985: 219; Humphrey 1987: 151). In short they argue that "when distributing jobs of different skill, training requirements, and levels of productivity, managements prefer to give men the chances to move up mobility chains, leaving women in the low-pay, dead-end jobs" (Ibid.: 219). Why ?

Barron and Norris suggest that women are mainly secondary workers because of five characteristics which employers believe women possess: dispensability, clearly visible social differences, little interest in acquiring training, low economism and lack of solidarity. These characteristics are the result of both the women's labour market experience, and aspects of the social structure outside of the labour market such as domestic responsibilities (1976 in Walby 1986: 81). It is acknowledged that hiring, training and promotional practices of companies may reinforce and increase these initial disadvantages, but the market takes no responsibility for causing them (Humphrey 1987: 3-4).

Radical economics is an offshoot of the dual labour market approach which focuses on the divisions which are created in the workforce as a result of the process of accumulation in the monopoly capitalism stage. According to this perspective the goal of capital is to extract the greatest surplus value possible from the working population. This is accomplished by increasing the rate of productivity more quickly than real wage rates are increased, and requires capital to create divisions in the workforce on the basis of sex, racial or ethnic origin, and language to prevent workers from organizing class protests. These divisions are furthered by technologies which provide capitalists with greater control over employees (Green 1983: 278-9). It is argued that employers have taken advantage of discrimination which preexisted in society, to develop segmented occupational categories which preserve and encourage sexually and racially discriminatory social patterns (Ibid.: 281).

In both versions of dual labour market theory, the structure and importance of the two labour markets are seen to be determined by technology and work content, and not the "human capital" characteristics of workers (Fernandez-Kelly 1983a: 95). The most common criticism of classical dual

labour market theory is that it is basically descriptive (Sokoloff 1980: 63; ICRW 1980: 37). Others argue that the approach does not explain the sex segregation which takes place within each sector, or the differentiation which takes place within the female sector (Blau and Jusenius 1976: 197; Fernandez-Kelly 1983a: 96).

The most serious charge made against these theoreticians is that they perceive the labour market to function according to non-gendered principles. Walby writes,

> They do not see the structure of the market as being determined or even shaped in any way by sexual divisions. It is seen as a consequence of the employers' needs both to retain skilled labour and to buy off the better organized workers...Sexual differentiation is seen as largely determined outside of the labour market in the sexual division of labour in the home (1983: 155 in Humphrey 1987: 151).

The radical model has also been found wanting. Green argues that the model's dependence on the concept of economic class conflict as the single dynamic factor which determines the nature of social relations renders it weak, for the differences between the roles of men and women are "blurred" (1983: 316).

One of the most seemingly useful contributions of dual labour market theory is its suggestion that men and women do not compete with each other in the labour market, and in fact that they are recruited to different labour markets and occupations. This aspect of the theory may have some explanatory potential with regards to employment practices in Juarez factories. It is possible that men simply do not compete with women for assembly positions, because they possess different characteristics which are determined **outside** the labour market. The data from Juarez indicate that gender, and not necessarily differences in productivity, is a key consideration in the hiring of maquiladora assembly workers. In Juarez there are as many unskilled men as women who lack "productivity enhancing

experience". The model is unable to explain why unskilled women, as opposed to unskilled men end up in assembly positions. In sum, it becomes difficult to believe the model's statement that places in the market are defined before gender is considered.

The radical model seems to make advances by its understanding of how employers take advantage of preexisting discriminations in society to create segmented occupational categories, which are then beneficial to capital. However, the model is incorrect in its assertion that it is capital alone which is responsible for the preservation and perpetuation of these patterns. The data from Juarez clearly indicate that the sex/gender system within patriarchal Mexico continues to function to create distinct types of gendered workers.

Braverman's Deskilling Theory:

Braverman is a Marxist analyst of monopoly capitalism who describes the process of "deskilling" which has taken place in the global labour force over the last 30 years. His argument can be broken down into three parts.

First, Braverman argues that technical changes in industrial production have generated an increasing number of narrowly-specified, repetitive, dead-end jobs, and have diminished the number of supervisory and managerial jobs available. This process he calls "deskilling". [56]

Secondly, Braverman stresses that employers rapidly incorporate these new technologies, which affect the

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[56] Braverman explains that the process of deskilling, or homogenization has been masked to a certain extent by the numerous labour categories utilized by government officials and academics. The terms blue-collar/white-collar, skilled, semi-skilled, unskilled etc., preserve the impression that there remains a great deal of skilled work, while in fact he argues the reality is one of growing convergence (Phillips and Taylor 1986: 60).

composition of their workforce, because of the economic advantages reaped such as an overall lower wage bill, greater control over production processes and more surplus value (Van Waas 1981: 25-6; Phillips and Taylor 1986: 59; Frobel et al. 1978: 128).

Finally, the author concludes that these new technologies and concurrent deskilling result in an increased demand from employers for female laborers to fill the growing number of low-skilled jobs created (Ibid.: 188). Women, Braverman explains, form the ideal reservoir for the

> new mass occupations because the barrier which confines women to much lower pay scales is reinforced by the vast numbers in which they are available to capital. These vast numbers are in turn guaranteed, for a considerable period of time by the lower rate of participation in the working population with which women entered into the era of monopoly capital (1974: 385).

There are a number of criticisms of Braverman's theory as it relates to female employment. Joekes points out that while technological changes have taken place throughout manufacturing, and there has been a widespread increase in the demand for unskilled labour, the specific demand for female labour has been restricted to a limited number of industries. She argues that the deskilling argument is not able to explain the selectivity of the increased employment of women worldwide (1985: 188-9).

Joekes also criticizes Braverman's logic that the demand for unskilled labour comes first, and that this demand is met by taking on women workers because they are characterized as unskilled. She questions why employers should favour women when there is such an abundance of unskilled male labour available, especially in developing countries (1985: 189).

Phillips and Taylor (1986), Walby (1986) and Sokoloff (1980) take Braverman to task for failing to understand the patriarchal nature of both the modern labour market and the

deskilling process. Walby insists that the model is overly functional, emphasizing a self-reproducing process, whereby the needs of capital are inevitably satisfied (1986: 80).

Phillips and Taylor argue that while Braverman is content simply to demystify skill categories, they find them illuminating of the sexual hierarchy which penetrates capitalism. The authors ask, "If skill distinctions are not necessarily about real work differences, what are they about ?" (1986: 60-1). In response to this question, Phillips and Taylor suggest that skill has become to a certain extent saturated with sex. They write,

> the equations men/skilled, women/unskilled - are so powerful that the identification of a particular job with women ensured that the skill content of the work would be downgraded. It is the sex of those who do the work, rather than its content, which leads to its identification as skilled or unskilled (Ibid.: 63).

Braverman's description of the deskilling process, which creates a work force which requires little training, is cheap to replace, and has an abundant pool of reserves, seems to describe the maquiladora work force quite accurately. With regards to women, Braverman's theory cannot explain why the deskilling process has resulted in the hiring of Juarez women in export oriented industries specifically, and not all Juarez industry. With recent changes in the Mexican economy, there are plenty of males in Juarez who meet Braverman's criteria of being willing to work for low wages. Why have they not been hired by maquiladoras ? In sum, Braverman's theory cannot incorporate the ramifications of gender relations in the functioning of the labour market.

Hartmann's Theory:

Although Hartmann is a feminist, we will not categorize her theory under the heading feminist economics, because she perceives the spheres of gender and work as separate rather than interconnected. Hartmann's argument starts out with

the premise that capitalism simply creates vacant places in the labour market, and that it is gender and racial hierarchies, such as patriarchy, which determine who will fill them (Phillips and Taylor 1986: 57). Utilizing the concepts of primary and secondary labour markets proposed by dual labour market theory, she stresses worker-led segregation which results in men overwhelmingly occupying the primary labour market and women the secondary, but criticizes economic models such as dual labour market theory which envision labour markets as being structured solely by capitalists. Men, she insists - male workers of all classes including capitalists - "limit the type and extent of women's participation in waged work...above all, they exclude women from the better jobs in order to increase the benefits to their own sex" (1977: 72). In this way, Hartmann suggests that the category of gender opposes the logic of capitalism; men enforce job segregation in order to maintain male superiority in both the factory and the home. She writes, "economic phenomena, such as skill classifications and wage levels, are not determined by purely economic factors...On the contrary, they are structured systematically by the hierarchy of gender, a hierarchy in which women as a gender are subordinate to men as a gender" (1982 in Humphrey 1987: 5).

In sum, Hartmann proposes that capitalists are forced by powerful male workers, supported by labour unions to adopt policies which do not necessarily make sense in terms of their own economic rationality.

Humphrey acknowledges that Hartmann's approach makes advances over purely economic theories by placing patriarchy and male workers at the center of analysis, but argues that it is still not satisfactory because it views the factory from outside, and maintains the link between wages and productivity (1987: 154). First, Humphrey insists that the conception of the secondary labour force is too abstract.

He writes, "It comprises all the bad jobs...[but] there is no basis for considering how divisions may be constructed differently along racial and gender lines, and the considerable degree of sex segregation within secondary labour markets is left unexplained" (1987: 154). Secondly, Humphrey argues that Hartmann's model cannot explain how labour markets adapt to the nature of the available labour force. "In other words she cannot theorize how occupations can be constructed around the characteristics (race or gender) of those occupying them, and this means that the flexibility with which types of workers can be matched to types of jobs is seriously underestimated" (Ibid.: 154). Lastly, it is suggested that the model is analytically weak in determining how gender identities for men and women are constructed in the work place. It is not enough, Humphrey argues, simply to suggest that patriarchy challenges capitalist principles, for gender and work are **not** separate and distinct spheres (Ibid.: 154, 197).

Hartmann's model has limited explanatory potential with regards to Juarez's <u>maquiladoras</u>. We can criticize Hartmann for allocating too much power to men, capitalists and workers. She overlooks the importance of cap talist power, and the need of capitalists to control labour, female and male. Given the process of deskilling which Braverman explains has affected male and female workers, it is not logical that male workers, who are also victims of deskilling and in essence "depowering" still have great ability to influence capitalists' decisions. We can perceive of Hartmann's theory as a complete reversal of dual labour market models which placed all focus of blame on capitalist labour markets. Her perception of gender and work as separate spheres in conflict, rather than a feed-back system, is not much of a compromise or improvement upon the purely economic theories she had hoped to replace.

Feminist Economics:

Unlike the previously described theories which perceive the spheres of gender and work as separate, feminist economists believe that a dialectic relationship exists between the home and the market. Primary causal power of women's subordination is attributed to the sex/gender system and patriarchy, but, the work place is seen as a site of further subordination (Ruiz and Tiano 1987: 7).

Humphrey's work on gender in Brazilian factories provides an excellent model with explanatory potential for understanding why young women in Juarez have been preferred for unskilled assembly functions.

Women's and men's positions in the labour hierarchy of the factory are, he argues, derived from two factors: 1) the way gender is constructed in society, creating male identities and female identities, 2) the way the gender system permeates and affects the construction of gender identities in the factory through both management hiring and personnel policies, and male factory workers' desire to maintain their superior position in the factory hierarchy. This is seen as a feedback system (1987: 6-7, 54, 156). We will examine each of these factors separately.

Part One: Gender Construction in Society:

The female "motherhood myth" and the male "breadwinner myth" are two products of the sex/gender system which affect male and female identities and hence, work opportunities and experience. The "motherhood myth" stems from the idea that because women bear children, child-bearing and child-rearing should be women's primary social role, and they should be relieved of the responsibility of being a "breadwinner" (Elson and Pearson 1980: 14). Women's lower wages and secondary status in the labour force are seen by patriarchal society and the capitalist labour market, as a natural consequence of women's primary role in the family

(ILO 1985: 30; Sokoloff 1980: 170). Sokoloff argues that all women entering the labour market are treated as mothers - past, actual, or potential. She writes,

> If a woman is single or newly married and without children, she will not be given a responsible job with high wages since, it is said, she will probably leave when she has a chance to marry and have children. If she has children, the rationalization given is that she will be unreliable because of the need to be absent if her children are sick (1980: 219-20).

Tiano clarifies that this tendency to define all women as wives and mothers has little basis in reality, and reflects cultural definitions of women's "ideal" roles rather than actual situations (Tiano 1986a: 70; Sokoloff 1980: 220). [57]

In contrast, the male "breadwinner myth" defines all men as actual or potential breadwinners (Humphrey 1987: 53; War on Want 1988: 9). Sokoloff writes, "the family wage, given to men only, is based on the idea that the wage should be sufficient to support the man and his family. This is true even if a man does not have a family" (1980: 173). It is important to note that the male "breadwinner myth" has meaning only in relation to the female "motherhood myth". Joekes elaborates, "the 'breadwinner' ethic...encapsulates the concept of women as 'secondary' workers...This idea is enormously powerful in reinforcing sexual stratification and it legitimises women's inferior treatment in industrial work in both men's and women's eyes" (1986: 7-8).

Thus, prior to entry into the labour market, men and women are differentiated by their domestic situations. As Humphrey argues, these gender differences permeate and affect the construction of gender identities in the factory.

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[57] We call this an **ideology** of differentiation for while it is true that there exist real differences in the characteristics of women and men as potential worker, these differences are not natural, but the product of the social construction of gender. While it is biologically natural for women to give birth, it is not natural to assign primary responsibility for child care and rearing to women.

Part Two: Gender Identities Within the Factory:

According to Humphrey, patterns of gender relations established in society are reproduced in the factory. Following this theory, work categories incorporate gender, and become a sexual division of labour. This takes place in a three part process where concepts of what is men's labour and what is women's labour take shape. First, patterns of gender in society as a whole are reproduced within the factory, such that men and women are divided into two distinct and homogeneous groups (Ibid.: 93, 119).

Secondly, male traits and male work are given a higher value than female equivalents. This is done by both denying women access to many genuinely skilled jobs, and by devaluing any work done by women (Ibid.: 91). Thus in Humphrey's Brazilian research factories, the male capacity to perform heavy work was valued higher than the female manual dexterity, punctuality, discipline and readiness to follow orders (Ibid.: 161; Humphrey 1985: 223).

Finally, job hierarchies are constructed in such a way that women neither have authority over men, nor occupy comparable or superior positions to them within manual work. In short, women's traits and work are given lower value than men's, and they are never allowed to be "better" than men (Ibid.: 92).

Humphrey concludes that as a result of this three-part process, women are both marginalized from productive and prestigious work and training which is reserved for men because they pressure management for it, and, even where women have skills or the required training, their occupations are not classified as having skills, for their stability in low paid jobs encourages management not to notice and reward women (1987: 163, 175; Humphrey 1985: 223; Pearson 1986: 92). These processes, which work to women's disadvantage, arise from the construction of gender

identities in factories, and from male workers' political pressure.

Humphrey cautions that the sexual division of labour in the factory is not static, but is a flexible, active structure, adaptable to changing economic and technological conditions. He writes, "Within each of the [male and female] spheres, which are divided by a division of labour by gender between skills, jobs, occupational categories, departments and functions, managements' construct patterns of recruitment, wage levels, wage forms, training and skill recognition which are systematically different for female and male workers" (1985: 228). Thus, even if women move to different jobs, the jobs will acquire "female" characteristics, and be devalued (1987: 175). Humphrey writes,

> Women's problem is not the types of work they do as much as the things which go with the occupations - pay, status, promotion...Through segregation, marginalization and devaluation, women are confined to subordinate positions, and entry to new areas of work may just change the position of the boundary line without changing the nature and effect of the boundary itself (1987: 201).

In short, male and female identities as workers have to be defined and maintained in the course of everyday factory life (Ibid.: 5).

The functions of the sexual division of labour are both to maintain male superiority in the factory and beyond, and to impede male/female comparisons which would destroy management's lucrative system of unequal reward to male and female workers. This is facilitated by a high degree of segregation of male and female workers, because the work men do, which involves better wages and promotional opportunities, is not always based on superior skill, productivity, etc. (Humphrey 1987: 107, 118, 157; Humphrey 1985: 222). Job segregation is therefore very difficult to fight, as it is structured around, and reinforces the subordination of women (Humphrey 1985: 228).

Humphrey convincingly demonstrates that gendered divisions of labour are established and reproduced in the work environment, and are not simply reflections of divisions in the larger society. He emphasizes that the sexual division of labour in factory settings is deliberately created and regulated by managers to control both male and female labour. This sexual division of labour functions to maintain male worker superiority and, since the gender hierarchy of the wider society is reproduced in terms of work categories, peace within the factory and the wider patriarchal society. Humphrey writes, "[men] have to incorporate gender into work hierarchies, devaluing, marginalizing, and segregating women as workers. This requires considerable attention to the internal organization of enterprises. Gender has to be incorporated into work categories themselves if men are to succeed in dominating women at work" (Ibid.: 90-1).

Huphrey's model could be criticized for being overly functionalist in its emphasis of a feedback system between gender construction in the society at large and the factory. This approach tends to overlook possible conflicts between workers and management, particularly women. For as we saw in chapter four, Mexican women who work as maquiladora assemblers are not docile and ignorantly accepting of management's policies to both control them and increase production.

The Application of Humphrey's Model to Juarez:

Applying Humphrey's model to the maquiladoras in Juarez helps us to understand the sexual division of labour which exists in these factories. We have determined in chapter five that the sex/gender system which functions in Mexico generates extremely distinct gender identities for Mexican men and women. The cultural concepts of machismo and marianismo are associated with the roles of "breadwinner"

and "mother" respectively, which Humphrey determines as key factors in the way men and women both perceive themselves and their respective "proper" roles, and how society and business interpret the working "potential" of each gender "type".

Maquiladora managers' statements in chapter four regarding the differing suitability of men and women as assembly workers revealed how managers seem to have internalized stereotypical assumptions about men and women. It is clear from managers' comments about the suitability of women and the non-suitability of men for assembly work in terms of perceived physical, psychological and economic characteristics, that they have placed men and women into opposing categories, which Humphrey claims are critical for the segregation of the genders in the factory.

A careful examination of the data gathered by Pena (1983) (discussed in chapter three) reveal a very clear sexual division of labour in the maquiladoras of Juarez. Men occupy the top 7 positions in the factory hierarchy involving "heavy" and technical work. Women dominate in the lower 5 positions, where they specialize in "light" work of assembly or sewing, and are very rarely in positions of authority over men. Thus, the higher ranking jobs which management classifies as "genuinely skilled", ie., those such as mechanic, lab technician, supervisors are completely monopolized by men. In contrast, lower and lowest ranking semi-skilled and unskilled jobs such as group chief supervisor, soldering, sewing and assembly operators, are predominantly the lot of women. Pena's work therefore seems to confirm Humphrey's hypothesis of management's perceptions of the importance of gender "differences" in the workplace.

This sexual hierarchy of production which perpetuates patterns of male superiority in the factory is, Humphrey argues, regulated and maintained by management policies and notions of work suitability for men and women, and pressure

placed on management by male workers to maintain their superior position in the factory hierarchy.

Once a sexual division of labour is established through hiring practices (demonstrated in chapter four) management personnel policies function to maintain such a division. Pena argues that maquiladoras use a synthesis of "imported" Fordist and Taylorist production principles with "local" patriarchal traditions to control female assembly workers, and maintain the sexual division of labour (1986: 148-9; 1981: 423-4, 512-3). He lists as an example the utilization of young, handsome male supervisors, given management's understanding that women will work harder for and obey such bosses (Ibid.: 495).

Additionally, the combination of forced resignations and temporary contracts which are utilized in both electronics and apparel maquiladoras, and the lack of promotional opportunities available to assembly operators, function in such a way that female assembly line workers have little chance to either gain experience and/or be promoted, both of which could potentially undermine the factory gender hierarchy.

There is some evidence that male workers are able to pressure management to give them jobs which are ranked as "skilled". One electronics factory personnel manager told Pena,

> It's just too much trouble. I can move women up a notch or two. You know, from operator to group chief and maybe even quality control inspection. But, if I was to promote women into higher supervisory levels, well, the men, the Mexican males, would be terribly upset. I'm not against the idea of women doing that type of work, but my first duty is to maintain order in the plant. The attitudes of the men here, let me just say that it does not give me a lot of room to move in (1981: 266).

Such comments suggest that male workers have some power to influence management decisions, however, the unemployment situation in Juarez for both men and women means that

factories have the ultimate control over whom they hire, and how they manage their personnel. Although as a result of the Mexican sex/gender system, and possibly the educational system itself, there are fewer qualified female engineers, management personnel etc. available to be hired by maquiladoras, the rigid sexual hierarchy which most factories maintain must ultimately be explained by the policies of the administrators themselves, which suit the economic and political needs of the factories as capitalist enterprises (Van Waas 1981: 352).

It is likely that maquiladora administrators are prepared to allocate the majority of "skilled" and career-orientated positions to Mexican men because it satisfies the men's culturally-determined need to be "breadwinners", thus maintaining peace, and the support of the male dominated culture within which the factories both function, and are being hosted. This is particularly important given the number of men who are under and unemployed in Juarez, and the strong male breadwinner ethic.

Male (non assembly) and female workers are expected to believe that the jobs they perform are skilled and non-skilled respectively. Given that it is the Mexican government who determines the wage levels to be paid to varying skill categories, it is in the interest of maquiladoras to keep their assembly workers, who make up 87 percent of employees, in the "unskilled" category (Van Waas 1981; Fernandez-Kelly 1983b).

The sexual division of labour also works to the benefit of maquiladoras in that it replicates the gender hierarchy which exists in Mexican society, and as we saw in chapter three, functions as a form of control in conjunction with more traditional methods of supervision and discipline (Pena 1981, 1986).

Does Humphrey's model help us to understand how and why women have come to dominate as assembly operators in the

maquiladoras of Juarez ? We can conclude that, given the economic constraints of offshore production and maquiladora's need for cheap unskilled and semiskilled labour to maximize profits, the sexual division of labour established and maintained in Juarez free-trade zone factories was a deliberate creation on the part of management. This sexual division of labour, whereby women comprise up to 80-90% of assembly workers, was instigated partially because of maquila managers understanding of the specific gender "traits" of Mexican men and women and their varying "suitability" to perform assembly tasks. More specifically, management, at both domestic and multinational plants, appreciated how such a sexual hierarchy of positions could be utilized to both control, and demand high levels of production from workers, while maintaining the support of males who are the socially sanctioned breadwinners in Juarez society. In short, segregation on the basis of gender is utilized in maquiladoras for economic and political reasons.

Conclusions

We will now answer the questions that were posed in the introduction. From our research and discussion it seems evident that women, specifically young women, have been the preferred assembly labour force over men, for a variety of social, political and economic reasons. Maquiladora managers genuinely believe that Mexican women possess "natural" physical abilities, such as dexterity, which make them highly suited to assembly production work. Managers also value women's docility and patience, which they understand to be the result of differing socialization processes for females and males in Mexico. It is women's secondary labour market status however, which renders women cheaper than men, and pressures them to make higher quality products, that makes them truly attractive employees. The high demand for young, single, childless women can be explained by management's perceptions of them as being unencumbered by domestic responsibilities, easier to train, less likely to rebel against factory policies, and even cheaper to employ than older women.

There are further political and economic reasons for hiring young women. For example, by choosing such employees, managers have access to a much larger labour pool, given that young women make up the largest percentage of migrants to urban areas. The practice of giving the majority of "skilled" factory jobs to males and "unskilled" factory jobs to females replicates the gender hierarchy in patriarchal Mexico, and as such provides administrators with a form of labour control which works in conjunction with traditional methods of supervision, to ensure high productivity and hence profits. This sexual division of labour in the factory has the added advantage of "keeping the peace," or maintaining the support of Juarez males, who

are the socially sanctioned breadwinners.

In short, maquiladora managers' selectivity is the result of an unquestioning belief in the gender-specific traits of women, and well-calculated policies, which have been designed not only to take advantage of the patriarchal system in Mexico and women's weaker social, political and economic position, but to maintain and control women's qualities of "cheapness", "docility" and "productivity".

With regards to our second question, it seems clear that female assembly workers have been hired for their qualities as "women" rather than as "workers". All of our data indicate that factories are able to exploit, or take advantage of the characteristics of women workers **as women**, for example their weaker labour market status, to extract greater output at lower costs than would be possible with a predominantly male assembly work force. Although preliminary data has indicated that some men in Juarez are now considering maquila work as a more attractive option, and consider the minimum wage offered acceptable given limited alternatives, maquiladora management has not yet responded by significantly increasing the number of men hired as assembly workers. It will be interesting to see in the future, whether the lowering of men's wage expectations, offsets - from the point of view of factory administrators- the other advantages female workers offer.

In order to answer the third question, "How does gender affect employment opportunities ?", we must take into consideration both supply and demand factors. The sex/gender system influences male and female perceptions of themselves in terms of appropriate roles and working trajectories. These gender stereotypes, which are reinforced in the culture at large, function in such a way as to influence the type of employment men and women search for, and the working conditions they are willing to tolerate.

Demand side factors are also heavily influenced by gender considerations. As Humphrey argues,

> When men and women enter a factory...they find that the principles of gender construction established in families and prevalent in society as a whole are also operative at work. Far from subverting male dominance and the rigid division into two genders, the organization of work incorporates it (1987: 53).

In sum, gender is imbedded with work and the hierarchical structure of production.

What conclusions can we make with regards to women's employment in maquiladoras ? Our data do not conclusively support either the integration or exploitation thesis put forth in chapter two. While our study of Juarez confirms integrationist claims that employment in the export sector has provided women with a regular income and greater economic security than other alternatives offer, and has to varying degrees provided young women with an economic alternative to early marriage and childbearing. The study also supports exploitation thesis arguments that women in Mexico have been selectively hired because maquiladora managers are able to take advantage of and reinforce women's weak market position to their own benefit, and that the jobs they are offered are unskilled, dead-end and unlikely to provide them with transferable skills.

We must therefore concur with Elson and Pearson's (1980) thesis that industrial employment can have multiple effects on women, and that rather than ending women's subordination, waged labour tends to transform it.

The information from Juarez confirms that certain forms of gender subordination are intensified, others are decomposed, while others are recomposed when women are employed in export-oriented industries. For example, the sexual division of labour which is established in factories as a means of labour control, whereby males generally have authority over women, intensifies and preserves traditional Mexican patriarchal patterns of the domination of women.

Additionally, the hiring and personnel policies of maquiladoras, whereby women are hired for unskilled, dead-end and unstable jobs, and males for more skilled, secure jobs, must be seen as contributing to the intensification of the sexually segregated labour market.

We also find evidence of the decomposition of forms of gender subordination. For example, wage labour has provided young women with an alternative to early marriage and motherhood, and the ability to contribute to household finances has lessened the control that male kin have exercised over women. The potential for economic participation has also offered women a new kind of companionship with the women with whom they work.

Other types of gender subordination have however been recomposed. Unprotected by the domestic sphere and male kin, women are now vulnerable to sexual harassment and exploitation by male superiors, and also to harassment outside of the factory environment as a result of the stigma of "looseness" attached to being a factory worker. In addition, traditional forms of patriarchal control have been combined or synthesized with modern techniques for maintaining factory discipline and production (Taylorism, Fordism) to generate an even more powerful tool to control female assembly workers.

Maquiladora employment, like all forms of employment, has its advantages and disadvantages. From the point of view of external observers and analysts, there is much to criticize. However, for the women of Juarez who have secured jobs in free-trade zone factories, and their families who rely on their incomes, maquiladoras offer the best alternative in the midst of few working options. They are, in the words of one electronics worker, "the best thing that ever happened to Ciudad Juarez" (Fernandez-Kelly 1983a: 183).

The future of the BIP looks promising, particularly in

light of the free-trade talks that Mexico, the United States and Canada are now engaged in. The use of cheap Mexican labour may soon become a common practice for numerous Canadian industries too. The nature of maquiladoras is such that their very existence relies on the continued supply of cheap and productive labour. If labour supply becomes short, or wage rates increase substantially in Juarez, factories will relocate to the interior of Mexico, or to other countries' free-trade zones. Globally, there is no shortage of cheap Third World labour.

Suggestions to improve the working conditions in maquiladoras are in many ways futile. The Mexican government, dependent upon the foreign exchange generated by these factories, is unlikely to pressure domestic and foreign companies to improve working conditions, increase wages etc. United States and other countries' multinationals will not alter working conditions unless they are legally obliged to by the Mexican government. Given the weak and often non-existent union representation of assembly factory workers, it becomes evident that maquila workers have no one who represents their interests.

Given that we have determined that women are preferred over men as assemblers, because they are more easily "exploited", or taken advantage of, should we recommend that maquiladoras be abolished ? Although working conditions for women in these factories are not ideal, given the shortage of other alternatives, we must respond - no. Such a large percentage of the population of Juarez, workers and their families, have become dependent upon a factory wage, that to remove them, without first providing other alternatives, would be economically disastrous. One of the groups hardest hit would be female heads of households.

In the long-term, the situation of working-class women can only be improved with greater access to higher education, access to training programs, and admission into

other areas of industry. This of course will require modifications in the sex/gender system, and the way that female labour is evaluated by business. For b rder cities such as Juarez which have become dependent upon foreign investment in their free-trade zones, a diversification of industry must be established to offer employment alternative to both men and women.

Lexicon

BIP	Border Industrialization Program
EOI	Export Oriented Industrialization
EOP	Export Oriented Production
EPZ	Export Processing Zone
FDI	Foreign Direct Investment
IMF	International Monetary Fund
NIDL	New International Division of Labour
OECD	Organization for Economic Development and Cooperation
PRI	Institutional Revolutionary Party
USAID	United States Agency for International Development
UNIDO	United Nations Industrial Development Organization

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